HOCHSCHULE MITTWEIDA
UNIVERSITY OF APPLIED SCIENCES

BACHELOR THESIS

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Logistic system in the management of foreign economic activity (based on LLC “Kolibri”)

2017

Faculty: Industrial Engineering with Business Studies

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Course of study:
Business Administration

Seminar group:
BW13w1-B

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Submission:
Mittweida, 07.11.2017

Bibliographic Description:

Lysykhin, Oleksii:

Logistic system in the management of foreign economic activity (based on LLC “Kolibri”)

59 Pages, Hochschule Mittweida, University of Applied Sciences,
Faculty of Industrial Engineering with Business Studies, Bachelor thesis, 2017

Abstract

The object of the thesis is the material and information flows in the production systems of enterprises, in particular, of LLC "Kolibri".

As a subject of thesis, the improvement of the management of material and related information flows of the company LLC "Kolibri" was chosen.

The purpose of the thesis is theoretical substantiation and development of practical recommendations for the effective management of the flows of material and information resources of the enterprise on the principles of logistics.

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List of abbreviations

etc. – et cetera

fig. – figure

Inc. – Incorporation

LIS – logistic information system

LLC – limited liability company

MTS – material and technical support

PVC – polyvinyl chloride

RIB – rigid inflatable boat

ROA - Return on Assets

ROE - Return on Equity

SBC – shipbuilding company

SWOT – Strengths, Weaknesses, Opportunities, and Threats

tab. – table

thsd. – thousand

UAH – Ukrainian hryvnas

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1 Theoretical basis of management by logistics system at the enterprise

1.1 Material and information flows and their structure as components of the logistics system

Commercial activity includes solutions to various complex tasks, the main of which is the problem of the material and technical support maintenance. The material resources for goods consumption are bought on the producer goods market in the conditions of market economic relations. Thus, enterprises must be solvent. The entire range of issues related to the management of material resources for material and technical support and marketing is the subject of logistics. The most important objects of logistics research are flows. From a mathematical point of view a flow includes a multitude of elements combined into a whole. The flows of different objects, one way or another, are interconnected, in addition, one type of flow can generate another, creating rather complex systems.

There are many definitions of logistics today, but all of them agree that logistics is a scientific discipline about flow management in systems. This general definition can be specified for the systems and flows it circulates in which. It is known that the system is a set of interconnected elements that function to achieve a common goal. The interconnection of elements and functioning in dynamical systems are achieved due to appropriate flows. For this reason, flows are an integral part of the system. Thus, they can be considered as subsystems and independent management objects. In connection with that, logistics uses methods of cybernetics and system science (system theory).

Mathematical methods give an idea of the quantitative aspects of flow. So, in particular, there are mathematical disciplines for the study of flows namely the theory of money and the mass service theory. Flow management, as well as any management, requires a representation, that is a model creating. Therefore, logistics as a science develops methods for flows modeling. At the same time, the logistics approach foresees interpreting the operating system as a flow. Such approach provides management of a certain character. For example, the system of material and technical support becomes more transparent if it is considered as a process of material resources movement in the sphere of circulation from the supplier to the consumer. It should be noted that, based

on the internal characteristics of logistics, the purpose of flow management is to achieve the end point under given conditions.[1]

Logistics management methods are based on the law of value, management and marketing principles, and also relates to the operation of distribution infrastructure namely warehousing and communications. Logistics is a peculiar center of actions coordination of all components of the circulation real process. From the logistics point of view, for the material and technical support realization it is necessary not only to establish economic relations in order to find a supplier, to conclude a supply treaty, but also to organize directly the goods delivery, to track its shipment and the very arrival to the place of consumption, as well as to pay off debts to all participants in the process namely trade organization, transport company, the base and intermediaries. At the same time, the improvement and adjustment of production, sales, procurement, storage, and transportation are extremely important as a whole. The initial organizational point here is the continuous service of demand dynamics, on the basis of which the parameters of the plan of components of the logistics system are determined. Such a plan is quite flexible. The possibility of a "flexible" response to the demand fluctuations is made up of a plan due to its development alternatives. An additional factor of flexibility is the purposeful creation of reserve production capacities, the load of which is carried out in accordance with previously developed backup plans of the material and technical support system of the enterprise. Individual elements of the well-known in economic theory logistics namely methods for solving transport problems, the optimal size of stocks determination are used in practice also. However, logistics considers them as interconnected and interdependent, that is, logistics is nothing else than the application of system theory in the field of optimal material flow formation.[2]

Logistics models creation begins with the analysis of marketing information.

Logistics specialists have developed an optimal schedule for the distribution and delivery of finished products and the scheme of intermediate storage based on customer requirements namely desired time and frequency of deliveries, consignments sizes, packaging type and other requirements.

Logistics marketing has an optimal plan to meet the conflicting requirements of the marketing, production, transport, warehouse divisions. So, for example, marketing principles provide a rhythm, high supplies reliability and regularity, goods quantity necessary for customers. Operational planning of production is based on the principle of costs reducing by increasing the goods consignments sizes, as well as reducing the

[1] Kirichenko, O. (2012). *Management of foreign economic activity*. P. 230

[2] Kredisov A., Berezovenko S., Voloshin V., Bikov G., Mazurenko V. (2012). *Management of foreign economic activity.* P. 331

number of reconfiguration in the technological process. Transportation management requires as much volume of a goods delivery per one time as possible, at the same time, the deliveries rhythm decreases and stockpile volumes both from suppliers and customers increase.[3]

Expenses decrease in the case of warehouse deliveries due to the delivery to a certain time point increases, and then with the continuation of the delivery cycle, practically does not change. Transit form is characterized by a stronger connection between expenses and possible delivery times. The warehouse form is efficient for a certain moment, but the transit form is more efficient in the presence of non-term or rhythmic deliveries. The terms "transit" and "warehouse" in the deliveries form are justified in this case as the reflection of the phenomenon essence in the material and technical support system.

Unlike the quarterly deliveries planning system adopted by us, other units of time measurement are used abroad. Day and night are taken as a certain unit of time for mass goods types. The maximum period of individual orders fulfillment does not exceed six weeks. In view of these restrictions, a scheme of displacement of finished goods from the moment of the completion of their production to the moment of delivery to the client develops on the base of the dependencies of individual parameters of the marketing logistics model of a particular enterprise. A place for storing products with the appropriate area, volume, humidity, and temperature should be planned before the time of completion of transport processes in the scheme. In addition, it is necessary to plan the mode of vehicles supply, their routes of movement, and necessary means of mechanization of loading and unloading operations. The layout is based on two aspects. Firstly, for the implementation of a particular order, a route is created, that is, a network model, in which moments of the beginning and end of all stages are known. Secondly, a general plan for individual elements location using (warehouses, vehicles, etc.) is formed as the sum of the plans of all orders for a certain period. By this way, it is determined what will remain at each specific place or how the truck will be loaded. Contracts, individual orders or mass production, the expected volume of mass and mass consignment production are the basis for the formation of current and operational plans for production and accounting for the cost of production. Thus, the logistics concept of the management of the main production is to a lesser extent oriented towards the goods being stored, and more often, on the implementation of customer orders. In this regard, the contracts durations for the deliveries of similar goods are reduced, and their consignments volumes are reduced.[4]

[3] Girchenko T., Dubovik O. (2014). *Marketing.* P. 160

[4] Lifar, V. (2012). *Commercial logistics and methodology for calculation of logistics costs*. In the magazine: "Lviv Polytechnic" №416. Pp. 293-297.

There should be constant control over the goods movement from the manufacturer to the consumer, including warehouse objects. For this, up-to-date information should go to the control and management structural units of material flows continuously.

Material and information flows together form the logistics flows of the enterprise. It is necessary to regard each component of the logistics flow of the enterprise separately.

The peculiarity of the material flow is that it is formed as a result of a set of actions with material objects. These actions are called logistics operations. However, the concept of logistics operation is not limited to actions only with material flows.

To manage the material flow, it is necessary to receive, process and transfer the information that corresponds to this flow. These operations also refer to logistics operations.

A logistics operation is a certain set of measures for the implementation of logistics functions aimed at transforming the material or information flow.

The following logistics operations are distinguished.

By the nature of the flow:

– logistics operations with the material flow namely warehousing, transportation, completing, downloading, unloading, internal movement of raw materials and materials in the implementation of logistics functions of production, shipment packing, shipment units consolidation, storage;

– logistics operations with the information flow namely information gathering, information storage, information processing, information transfer.

In relation to the logistics system:

– external ones focused on the integration of the logistics system with the external environment namely operations in the deliveries and sale fields;

– internal ones that are executed in the logistics system.

By the nature of the work performed:

– value added operations that change the consumer properties of goods namely cutting, packing, drying, etc.;

– operations without value added (storage of goods).

By the transfer of goods ownership:

– unilateral operations that are not related to the transfer of goods ownership and the insurance risks are carried out in the logistics system;

– bilateral operations that foresee the transfer of goods ownership and insurance risks from one legal person to another.

Logistics operations include also forecasting, control, operational management.

A brief description of logistics operations in the context of the main logistics functions is given in Table 1.

LOGISTIC FUNCTION	MAIN LOGISTIC OPERATIONS
Sales (in the middle)	Coordination with the marketing plan, forecasting of demand, service, operational and calendar planning of transportation of finished products, inventory control of finished products, processing of customer orders, warehousing of finished products, loading and unloading and transport and warehouse work with finished products, delivery of finished products, accounting of finished goods.
Production	Coordination with the plan of physical distribution, operational and calendar planning of the movement of work in progress, intra-factory transfers of materials, loading and unloading and transport and warehouse work with incomplete production, operational support of production units by raw materials, materials, semi-finished products, warehousing of work in progress, accounting for work in progress.
Supply	Coordination with the operational and calendar plan of production, selection and conducting of negotiations with suppliers, planning of requirements for materials, preparation of the operational-calendar plan of delivery, transportation of raw materials, materials, semi-finished products, component parts, warehousing of inventories, loading and unloading and transport and warehouse work from Items of supply.

Table 1: A short list of basic logistics operations

When the flow of material is not in the time interval, but at a certain time point, it passes into the stock (for example, the goods are sent, but it has not reached the recipient thus the stock is in the path).

Commodity stocks are subdivided to stocks of means of production and goods of consumption. For example, stocks of prepared metal rolling in the warehouses of the sales service of the metallurgical industrial complex are the part of the inventories of the production facilities (the metal rolling is ready for sale, but it will be launched in the production by the buyer). The stock of footwear in the warehouse of the prepared product

of the footwear factory can be an example of a commodity stock of consumer goods. The production and goods stocks have current, insurance and seasonal nature.

Current stocks are the main part of the production and goods stocks that provide the continuity of production or trade process between regular deliveries.

Insurance stocks are intended for the continuous providing with the material or goods production or trade process in the event of various unforeseen circumstances, for example, the deviation of the frequency and amount of the consignment deliveries from the treaty stipulated; possible delays in materials or goods on the way when delivered from suppliers; unforeseen increase in demand.

Seasonal stocks are formed by the seasonal nature of production, consumption or transportation. The agricultural goods production can be an example of a seasonal nature of production. The seasonal nature of consumption is the gasoline consumption during the harvesting season. The seasonal nature of transportation stipulated to the lack of permanently functioning roads as a rule.[5]

Several types of information flows are distinguished in logistics. An information flow can be ahead of the material flow, be with it, or lag behind it. The information flow can be directed both in the same direction with the material and in the opposite one.

The forward information flow contains data on orders for the goods delivering, production in the opposite direction as a rule.

The forward information flow contains in the forward direction, for example, the previous messages about the arrival of the shipment.

There is the information in the straight direction about the quantitative and qualitative parameters of the material flow along with it.

Immediately in the opposite direction, there is information on the results of acceptance of the shipment, by quantity or quality, claims, confirmation of the shipment arrival.

The path through which the information flow moves may not coincide with the path of the material flow.

As an example, it can be considered the structure of the total volume of information of a large grocery store. The main part of the total amount of the information (60%) is made by suppliers. As a rule, these are documents that accompany of come to the store goods

[5] Kovtun K., Sheremet N. (2012). *Fundamentals of Logistics*. P. 76

(goods and accompanying documents). According to the above definitions, they form input logistics information flow.

The rest of the information is formed by pieces in the store and is 40%. 25% of the information is used directly in the store, and 15% of it is beyond it. Thus, 75% of the total amount of the information processed in this store is the information that is necessary for the management and control of external logistics operations.

1.2 Material flows in the logistics system of the enterprise and their management organization

A factor that allows integrating all elements of a logistics system into an efficiently functioning mechanism is a material flow. When speaking of the logistics principles, the material flow is an interconnection of all processes and operations associated with the production, finishing, refining, storage, transportation and shipments distribution in the sphere of goods producing in industrial enterprises, in stores, on production sites. Each flow is based on a certain material carrier, so all of the flows are material from this philosophical point of view. However, in economic practice, material flows are perceived in a concrete sense as flows of material resources intended for production or end-use as far as material resources play a major role in social production.

Basic parameters of the flow characteristic are its initial and final points, a trajectory of motion, length of the path, speed and time of movement, intermediate points, and intensity.

Objects that get into the flow are divided by their nature into the material, transport, energy, money, information, and others. Material, money, and information flows are most often used in logistics.[6]

Undoubtedly, the formation of the flow requires processes related to the transportation, processing, storage and other operations execution with raw materials, materials, semi-finished products, and finished products, starting from the primary source of raw materials to the end consumer. The material flow is transformed into a material stock at a certain stage.

The material flow is characterized by the goods range and quantity, physical and chemical properties. It depends on the type of container, contract terms, transport, etc.

[6] Mischuk, I. (2014). *Trading logistics.* P. 28

In addition, material flows are divided into incoming and outgoing ones.

They can be classified depending on the type of transport (road, rail, water, and air), shipment traffic (heavy, oversized), physical and chemical properties (friable, fuel, synthetic).

In relation to production, distinguish external and internal material flows. The first circulates in the turnover sphere; the second is directly in the enterprise, that is, in the production sphere. External material flows meet the needs of material and technical support (MTS) of production or other reasonable human activities. In the material and technical support system material flows are divided into the following groups: raw materials, basic materials, semi-finished products, components, fuel, tools, inventory, and equipment.

Each of these groups undergoes a deeper differentiation. From the point of view of material and technical support for each section of the specified nomenclature is formed a simple flow of the material resources from the range. Such a flow should become the object of management.

Flow management in logistics also involves the following functions: planning, operational regulation, accounting, control, analysis. Each function is divided into tasks and tasks are divided into operations. The range of tasks and their structure on each management function are also determined by the essence of managed flows. In general, each function can be characterized as follows. The planning function provides the solution of problems associated with the creation of an optimal trajectory of the flow movement, the flow formation as a set of the concrete objects, setting its intensity, developing a chart of the flow passing, calculating the need of resources for the flow realization, the minimizing time of the flow progress.[7]

Operational regulation represents the implementation in practice of the planned regime of flow movement. Within this function, observations are made for each object of the flow according to the schedule of its movement, including the planning of objects of displacement, the development and introduction of management elements. The function of the account provides the solution of information tasks, such as collecting, processing, storing and issuing information, conducting operational and statistical accounting, drawing up the necessary report. The control function establishes the degree of correspondence of the actual parameters of motion to the planned values. In addition, it is used to manage the specified values of flow elements in the form of norms and standards. The analysis function includes a set of tasks related to the formation of cause and effect relationship between the achieved results and expenditures, the detection of

[7] Smirnov, I. (2014). *Logistics: Spatial-territorial dimension.* P. 200

the influence of various factors on the actual values of parameters of the flow, the calculation of the efficiency of management and functioning of the system as a whole. Analysis methods are developed and improved within this function. The resulting analytical information, which is the result of the analysis, is used for the new management cycle and the new planning calculations. Therefore, a logistics system that includes both exploiting and operating systems in the form of the concrete flows, coincides with the purpose of managing flows.

The logistics aspect of material and technical support takes into account the requirements of the consumer, which is the guideline for the management of material flows. At the same time, a control system is created. The presented logistics approach is used to create an automated material and technical support management system.[8]

As it has already been mentioned above, material flows are divided into external and internal ones. The starting point of the external material flow is the warehouse of the final goods of the manufacturing enterprise; the final point is the warehouse of the production stock of the consumer enterprise. The starting point of the internal material flow is the warehouse of production stock of the manufacturing enterprise, and the final point is its warehouse of the final goods. Internal flows of materials at the wholesale trade organizations bases, in sea and river ports and other systems of industrial infrastructure, have specific characteristics. Despite the fact that industrial stocks are strongly encouraged to be done whatever the environment effect is, the internal flows are under the great influence of material support, which depends on external material flows. Considering the material flows as the main object of management of material and technical support, it should be noted that in goods production and circulation of material resources in material form is created and accompanied by the movement of funds. In addition, both flows are in the dialectical unity. Thus, the object of management is the "material resources + services + finances" multidimensional object in commercial logistics. Management is directed not only to the physical displacement of material resources from supplier to consumer but at the same time to achieve their rational use and maximum commercial benefit.[9]

Taking into account the relationships between the functions that determine the material flow of the manufacturing enterprise, its character, as well as the target orientation, logistics involves the use of organizational and administrative mechanisms for the coordination of logistics systems. The organizational mechanism is connected with the achievement of the necessary level of integration through organizational changes in the structure of business management. It can exist in the form of an association when the

[8] Rodkina T., Kozlov A. (2011). *Modeling of Purchasing Process.* In the magazine: "Logistics" №1. Pp. 10 - 11.

[9] Nikolaichuk V., Belyavtsev M. (2014). *Industrial Marketing*. P. 240

actions of many functional services are coordinated in the same task of the department. Such a structure is appropriate in the case of its use to the extent that it is subordinated to the purpose of coordinating activity types related to each other.[10]

The American firms practice shows that the merge of efforts of the specialized apparatuses of management of a large corporation in the conditions of continuous changes in the external environment cannot be ensured without the creation of the administrative mechanisms at different levels, the main purpose of which will be the temporary or permanent integration of functional links as well as coordinating their actions to achieve certain results.

When small enterprises with mass-producing production character operate in relatively stable conditions, the entire volume of coordinating functions is concentrated in the top-level directorate. However, with the production increase in the scale, expansion of the goods range, expansion of the sphere of the company activity, the growth of the management levels number, the process of managing the material flow is complicated so that the question arises about the creation of special mechanisms of inter-functional coordination in this area.

Based on American practice, there can be distinguished two main directions of the material flow management of the firm. The first direction is the improvement of various economic mechanisms that strengthen the interaction of various functional relationships within the firm. The second is the implementation of organizational changes in the corporate structure in order to improve the connections coordination.

These directions work in parallel, complementing each other.

As noted, the structure of material flows management may be different. These may be divisions that address the issue of managing the flows of raw materials and materials necessary for the implementation of the production program, or departments of the acquisition or management of materials. The sphere of activity of these divisions extends to the economic space, both from the supplier's finished goods warehouse and to the consumer's finished goods warehouse.

To manage the finished goods flows at the enterprise the divisions can be created. They include distribution departments. It is considered as warehouse and transport departments at Ukraine enterprises.

Abroad in order to coordinate actions, the improvement of the planning and control processes of material flows management, which is carried out on the basis of the

[10] Kalchenko, A. (2013). *Logistics.* P. 172

computers use, occurs in parallel with the services organizational reorganization involved in the management of materials.

Three types of organizational mechanisms have become the most widespread. This may be special functional links, in which a big part of the planned, administrative and control functions that regulate the material flow motion is controlled. In some cases, it is decided by a special managing director or coordination group whose main task is to coordinate the process of making decisions on material flow management.

To ensure a high level of internal functional coordination mechanisms, matrices with the dual subordination of the links which influence the effective management of the material flow on are used. Creating such mechanisms allows solving the problem of inter-functional interactions.[11]

Specialized management structures in the field of logistics are developed on the basis of problems that the firm has to solve. According to the functional features in the logistics management structures distinguish three areas: planning, regulation, and control.

The main planning processes include the preparation and approval of plans and schedules and the material flow use at all links of the production and marketing system; development of action lines and formation of criteria for assessing their achievement.

Control is an important function that allows estimating the level of material resources ensuring, the effectiveness of their use, the calculation of costs associated with their movement in all system links. Due to control, the measures are being developed to improve the efficiency of material flow management.

Each structural block consists of different sets of managerial links. Their number and the features of interaction depend on the volume and complexity of work related to the management of the material flow at each stage of the movement through the production and marketing system, as well as on their features.

Organizational structure can be different and depends on the goods nature, the number of consumers, and size of the enterprise. The management mechanism puts on the introduction of specially developed administrative procedures, which are based on the planning of production, sale, storage, and transportation into a single material flow. The concept of the logistics system can also be applied to governing bodies. On the one hand, it is a certain number of structural elements that operate to achieve a single goal, and on the other hand, it is the plan of its achievement by the subject of management.

[11] Daniel L. Wardlow, Donald F. Wood, James C. Johnson, Paul R. Murphy, jr. (2012). *Contemporary Logistics.* P. 401

The logistics system is also an organizational mechanism, which crossing the functional boundaries of the departments of the manufacturing enterprise, thanks to more flexible coordination, directs their actions to achieve the goals of logistics. Logistics should be not a separate division of the enterprise but inter-functional and be responsible for all types of activities related to the material flow and the actions needed to meet demand from the choice of suppliers to the services provision. The department should be headed by the manager of the material flow, which determines the operational tasks, resolves conflicts, and is responsible for improving the system and the final results of its functioning.[12]

The variety of features inherent in manufacturing enterprises, the variety of specific problems that are faced cause a lot of organizational decisions material flow management. For material-intensive industries, especially in the machine-building enterprises, in the direction of the main activities of organizational change is the transformation of efforts aimed at reducing costs at the supply and production stages. Such an organizational solution is a consequence of the underdevelopment of its own distribution network for most machine-building enterprises. However, this does not mean that this organizational restructuring does not apply to the sale sphere.

The specification of functions and the development of the internal structure of the bodies of material flow management is a complex process.

The main functions of the divisions for managing the flows of raw materials and materials are the planning and coordination of needs plans in production materials, the development of schedules for loading of mechanisms and routes of motion of material flow in the processing.

In the sphere of the material and technical support, an important role plays the linkage support with suppliers, the orders development, the organization of materials procurement, the organization of their transportation. The particular importance has the provision of various types of services to consumers.

Enterprises that produce a wide range and serve a large number of territorially separated consumers with a well-developed distribution network focus their efforts on reducing expenses. Structural changes in distribution channels are of paramount importance. Attention is focused on the concentration of surplus goods stock, the use of advanced types of containers and packaging, rational placement of firm stores, service stations, warranty workshops, regional warehouse complexes, and the selection of optimal transportation routes. This is important both in terms of reducing the cost of supplies and

[12] Olabody, O. (2013). *World economy and international economic relations*. P. 17

ensuring a high level of service. This contributes to the integration of functions associated with the goods movement.[13]

During the movement of the material flow graphs and routes are created, services for the supply of finished products are carried out. The main attention is paid to ensuring close interaction between production and marketing connections. Thus, the material management department supports the organizational mechanism for reducing costs that arise mainly in the stages of supplying and production, and distribution management department acts as an identical mechanism in the sales sphere.

Each link of this structure is rather independent, but they all act as a single complex. All coordination and control functions are concentrated in divisions that are subordinate to the manager of material flow. Of great importance in this process is the use of specialized information system.[14]

The most effective structural division of logistics is the management of the material flow, which includes planning, administrative and control functions, which in their turn regulate the movement of the material flow and ensure the coordination of the work of all management links.

An interesting method is the creation of a logistics structure depending on the types of activity of the enterprise. For example, material and technical support, forwarding operations, transportation process, etc. Each of these divisions includes groups or individual legal entities engaged in the execution of transactions related to procurement, material supply, regulation of transportation processes, determination of needs in material, etc.

1.3 Information flows in the logistics system of the enterprise and their organization of management

The modern state of logistics is largely determined by the rapid development and introduced in all sphere of information and computer technologies. Implementation of most logistics concepts and systems would be impossible without the use of high-speed computers, local networks, telecommunications systems and information supply. Many experts allocate to the special information material and technical support which has an independent importance in business, the management information flows, and resources

[13] Savitskaya, G. (2012). *Analysis of the economic activity of the enterprise*. P. 417

[14] Kotler F., Armstrong G., Saunders J. (2011). Marketing Fundamentals. P. 592

because of high importance the value of the information support for the logistics process. This functional logistics field is often called the computer field.[15]

Information logistics organizes the data flow that accompanies the material flow. It covers the management of all processes of movement and storage of real goods at the enterprise, which ensures timely delivery of these goods at the necessary quantities, a full range, and quality from the point of their manufacturing to the point of consumption with minimal costs and an optimal service.

The information provides as the engine of the logistics system and keeps it open for adaptation to the new conditions. In this regard, one of the key concepts of logistics is the concept of information flow.

The information flow in the logistics is a set of circulating in the logistics system, between the logistics system and the external environment of messages, which is necessary for management and control of the logistics operations.

Increasing the role of information flows in modern logistics is due to the following main reasons, namely, for obtaining information about the status of the customer's order, the availability of goods, delivery times, shipping documents, etc. This is a necessary element of consumer logistics service. In terms of the inventory management in the logistics chain, the availability of full and reliable information allows reducing the need for reserves and labor force by reducing uncertainties in demand level. Information increases the flexibility of the logistics system, for example, where and when resources can be used to achieve competitive advantages.[16]

Logistics distinguishes the following types of information flows.

There is a horizontal flow that belongs to one level of the hierarchy of the logistics system and the vertical flow that belongs to the top level of the logistics system below depending on the type of systems that are reported by the flow.

There is an external flow that circulates between the logistics system and the external environment and an internal flow circulating in the logistic system or its individual elements, depending on the location of its passage.

There are flows, namely input and output depending on the direction in relation to the logistics system.

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[15] Smirichynsky V., Smirichynsky A. (2013). *Fundamentals of Logistic Management.* P. 156

[16] Maksimenko Z., Tkachenko N. (2014). *Public Procurement in Ukraine: Economic Aspects and Collection of Regulatory Acts*. P. 271

They are distinguished by the form of data carriers, for example on the paper; the hard storage; an electronic and other.

They are depending on the destination, namely the directive; reference; registration, analytical, and auxiliary.

The interconnection of material and information flows is evident; however, the correspondence of one flow to another is conditional. In fact, the content of the material flow coincides with the data information flow, but in temporal parameters, they may be different. In practice, the material and the information flows in the logistics systems often go at different rates. Compatibility of the material and the information flows also has a specific feature. They can be both monodirectional and multidirectional. The counter information flow contains the order information in the opposite direction. The growth information flow in the forward direction contains previously reports about the forthcoming arrival of the goods. Along with the material flow is information about the quantitative and qualitative parameters of the product. After the material flow in the opposite direction, information about the results of the receipt of the goods by quantity or quality, various claims, confirmation can provide information.

The road of the information flow, in general, is moving may not coincide with the route of the material flow.

The information flow is measured by the number of processed or transmitted information per unit time. The information flow can be based on the movement of paper or electronic documents. Depending on this, it is determined by the number of processed and transmitted units of paper documents, or the total lines number in these documents, or the amount of information (bit) contained in the reports.[17]

The information flow is characterized by the following parameters, namely the source of appearance, flow direction, frequency, type of existence, a transmission rate and reception, flow rate, etc.

The control of the information flow could be taken in the following way, namely changing the direction of flow, limiting the transfer rate to the appropriate reception rate, limiting the volume flow to the size of the capacity of the individual node or section way.

There are six clear requirements for the information flow.

Completeness and applicability of the information for the user. The logistics information system should provide the information in the form and completeness that is required to

[17] Tarangul, L. (2014). *Organization of trade.* P. 31

perform the logistics functions and operations. The decision-maker must have the necessary and sufficient information to make decisions.

Accuracy. The accuracy of the initial information has a fundamental value for making the correct decisions. For example, information about the level of reserves in the distribution network in modern logistics systems is not more than 1% of errors or uncertainties for making effective decisions in a physical distribution field, inventory creation, and customer satisfaction needs. The accuracy and reliability of the source data are important for demand predicting, planning of needs for material resources and etc.

Timeliness. Logistic information should arrive in the management system in time as it requires modern logistics technologies, especially based on the concept "just in time". Information timeliness is important for practically all complex logistic functions. In addition, many tasks in the transport field, operational management, order management and stockpiles are solved in real time mode. The requirement of timeliness receipt and processing of information are realized by modern logistic technologies of scanning, bar-coding, electronic data interchange and radio frequency identification.[18]

Orientation. The information contained in the logistics information system should be aimed at identifying additional opportunities for improving the quality of services and decreasing logistics costs. Ways of receiving, transmitting, displaying and pre-processing information should facilitate the identification weaknesses, resource reserves, etc.

Flexibility. The information circulating in a logistics information system must be adapted to specific users and have the most flexible and useful way for them. It concerns both firm personnel, logistics intermediaries and end-users.

Suitable data format. The data and message format used in the computer and communications networks of the logistics information system should be used as efficiently as possible using technical means (a memory size, speed, capacity etc.). Types and forms of documents, a location of the requisites on paper documents, a dimension of the data and other parameters should facilitate the processing of information. In addition, information compatibility of computer and telecommunication systems of logistic intermediaries and other users in the data formats in the logistics information system is necessary.

Various information flows circulate between elements of the logistics system, between the logistics system and the external environment of the logistic information system.

[18] Burov, A. (2014). *International Marketing*. P. 184

A logistic information system (LIS) is an organized set of interconnected means of technology, various reference and necessary programming means that provide solutions to various functional tasks of material flow management.[19]

The information system should consist of interconnected elements and have some recruitment of integrational qualities as any other system. Most often the informative systems are subdivided into two subsystems: functional and providing.

The functional subsystem includes a set of tasks combined for the same purpose.

The subsystem of the provision includes the following elements: technical support, that is, a set of technical means for processing and transmission of information flows, information support, which includes various reference books, classifiers, codifiers, means of formalized description of data, software that includes methods for solving functional problems. Logistic information systems are automated control systems for logistics processes. Therefore, the software in logistical information systems is a complex of programs and set by means of the programming providing the decision of management problems by material flows, text processing, obtaining the background data and functioning of technical means.

Information systems in logistics can be created in order to manage material flows both at micro and macro levels.

They are divided into three groups, namely, planned, non-mandatory (or dispatching), executive (or operational) at the level of individual corporate information systems.

Planned information systems are created at the administrative level of management and serve to make long-term strategical decisions. Among the tasks to be solved are the following: creation and optimization of links of a logistics chain, static data management, production planning, general inventory management, reserves management, and other tasks.[20]

In the planned information systems is the highest level of standardization in solving problems, which allows you to adapt the standard software with the slightest difficulty.

The non-mandatory information systems are created at the level of management stores and shops for providing a well-functioning logistics system. Here are solved such problems, namely detailed inventory management (storage facilities), storage or

[19] Goncharuk Y., Pavlenko A., Skibinsky S. (2014). *Marketing.* P. 232

[20] Kozlovsky, V. (2013). *Fundamentals of Foreign Economic Activity: Workshop.* P. 262

transport management within the enterprise, selection of goods by order and their equipment, accounting of shipments goods and other tasks.

The non-mandatory information systems provide the opportunity to adapt the standard software package below. This is due to several reasons, such as production in the enterprises, which have a historical tradition and difficult to accept standardization.

Executive information systems are created at the level of administrative or operational management. Information processing in these systems is carried out at a speed related to the speed of its receipt into the computer. This is the so-called real-time operation mode, which provides the necessary information about the movement of goods at this moment in time to apply the appropriate administrative and operational actions to the management object. Various problems related to the management of material flows, operational management of production services, movements management, etc., could be resolved through these systems.[21]

In the executive information systems at the operational level of management is used an individual software.

According to the logistics concept the information systems of different groups are combined into a single information system. There are vertical and horizontal integrations.

Vertical integration connection is considered between planned, non-mandatory and executive the systems with the help of vertical informative flows.

Horizontal integration connection is between separate complexes of tasks in non-mandatory and executive systems with the help of horizontal information flows.

In general, the benefits of integrated information systems can be formulated as follows: the speed of information exchange is increasing, the number of errors in calculations decreases, the volume of unproductive (paper) works decreases, and an association of information blocks.

[21] Oklander, M. (2013). *Formation of logistic systems of enterprises*. P. 30

2 Research and analysis of LLC “Kolibri” economic activity

2.1 History of LLC “Kolibri” development

It all began more than 20 years ago, in 1995, when the beginning businessmen from Melitopol city decided to make automobile awnings, trade and exhibition halls, advertising production from the new material for our country at the time namely PVC fabrics.[22]

Having decided that it will not be possible to develop extremely in their native town, they decided to move to a bigger city. The choice fell on Dnipropetrovsk city.

The start-up entrepreneurs have rented a production facility at one of the industrial sites, registered the company and named it in the name of a small but proud bird namely the Hummingbird (“Kolibri” in Ukrainian) after arrival in the big city.

Thus, the history of the LLC “Kolibri” company, which is the first founding company of the future corporation, starts from the state registration date on October 25, 1995.[23]

Since 1995, the company had engaged in the production of automobile awnings, the construction of small buildings of light and welded materials.

In the summer of 1998, it was made the first batch of inflatable boats as an alternative to the main activity (the awnings production). Then there was no confidence in the chosen direction of activity.

The production activity of the company was carried out on leased areas of one of the Dnepropetrovsk motor depots until 2002. The company founders realized that company genuine independence and stability will be achieved only having private production facilities and equipment in its private areas.

In 2002, the first plant house on the Karavaeva Street in Dnipropetrovsk was purchased. Now it is an operating enterprise with a cycle of assembling inflatable boats, rigid inflatable boats (RIB) and an experimental products workshop.

Years 2004 and 2005 are marked by of sewing and foundry production launch, respectively. The consequences of this fact are such that the shipbuilding company

[22] *History of the establishment of "KOLIBRI LLC",* in: Kolibri. URL: http://www.kolibriboats.com (1.09.2017)
[23] *History of the establishment of "KOLIBRI LLC",* in: Kolibri. URL: http://www.kolibriboats.com (1.09.2017)

(SBC) “Kolibri” is the only manufacturer of small vessels in Ukraine nowadays, which produces for them virtually all fitments, accessories, and additional equipment at its own enterprises.

The purchase of a second plant house on the Matlakhov Street in Dnipropetrovsk took place in 2007. Now it is the main plant and central office of SBC “Kolibri”.

In 2008, the awnings production was decided to separate from the group of companies “Kolibri” as an independent enterprise. LLC “Kolibri” main activity since 2008 is only shipbuilding.

The period from 2011 to 2012 brings the restructuring of the company. The SBC “Kolibri” brand, which consolidates a group of companies into a single shipbuilding corporation, is being created.

The company orientation turns from production to marketing in 2012. And the main priority of the company's work becomes the consumer and meeting of his needs. When deciding on ways of further development of production, there was a choice between plastic vessels, the production method of rotary forming, and vessels with aluminum bodies. The choice was made in favor of the all around the world popular mass production technology of plastic vessels namely the rotational formation. In the same year, the “ROTOFORM” project has started.[24]

The 2013 year marked by LLC “Kolibri” rebranding. At present the logo symbolizes the step towards the consumer. The SBC “Kolibri” logo is two wings and at the same time two hands of the manufacturer and the consumer. A house was purchased and a separate “ROTOFORM” plant was launched in Dnipropetrovsk. The serial production of a completely new product for the Ukrainian market namely plastic vessels manufactured by the method of rotational formation has started shortly. The first boat, produced by the method of rotational formation, appeared the same year.[25]

The organizational structure of the company includes 10 workshops of inflatable boats and RIBs production, fiberglass goods production, production LLC “ROTOFORM”, foundry production, sewing production, a center for training of personnel for production divisions, a service center, technical control department, supply department, storages facilities, sales department, marketing and advertising department, design bureau, administrative and economic department, accounts department, security service.

[24] *History of the establishment of "KOLIBRI LLC",* in: Kolibri. URL: http://www.kolibriboats.com (1.09.2017).
[25] *History of the establishment of "KOLIBRI LLC",* in: Kolibri. URL: http://www.kolibriboats.com (1.09.2017)

Nowadays SBC “Kolibri” contains three shipbuilding plants with total productivity more than 70,000 vessels a year and it is the largest manufacturer of small vessels in Ukraine and one of the largest manufacturers in Europe. Its dealer-distributor network consists of more than 300 enterprises in more than 20 countries of the world.

2.2 Assessment of foreign economic operations and logistics flows at LLC “Kolibri”

Modern conditions of the market economy, connected with the strengthening of the influence of consumers on goods production, the intensification of competition about the consumer, the transition from the seller market to the buyer's market, stipulate the need to use a logistic approach in the management and development of the international transportation. This approach will allow ensuring the necessary goods range, the successful promotion of goods on the market, coordinated use of external and internal transport, which guarantees timely delivery of goods in accordance with the requirements of the trade process, a rational location of warehouse facilities, optimal goods inventory management.

Considerable attention is paid to the development of international carriage at LLC “Kolibri”. In spite of the fact that the company does not have a separate logistics department, the respective functions of control, analysis, and planning of logistic flows are decentralized, that is, they are scattered in departments. Since the enterprise does not have a separate logistics department, the respective functions of control, analysis, and planning of logistics flows are decentralized, that is, dispersed between divisions.

When researching the sales policy at LLC “Kolibri” implements a grouping of counteragents on different grounds. As the basic grouping features for the analysis of counteragents are used the level of distribution channels, the counteragents location, the duration of economic relations, the form of payment for goods.

Export share of LLC “Kolibri” products in total sales amounted 48.8% in 2012, 47.1% in 2013, 45.2% in 2014 and 50.3% in 2014. CIS countries played a significant role in “Kolibri” international activity (see Fig. 1).

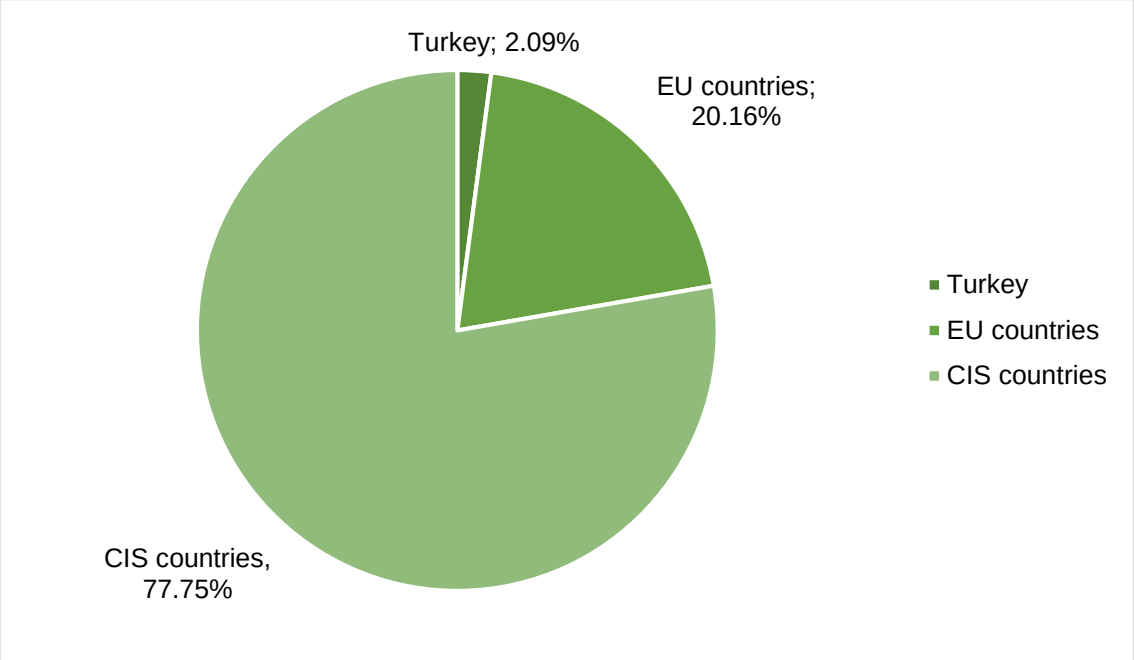

Figure 1: Export share of LLC "Kolibri" in 2013

Years 2013 and 2014 have had a profound impact on the LLC “Kolibri” international activity. It is at this time that all relations with Russian customers were broken. However, in 2015 already there was an improvement in the company's foreign economic operations (see Fig. 2). Links were established and counteragents were searched in other countries. A more detailed trend can be seen from the following diagrams in Appendix A.

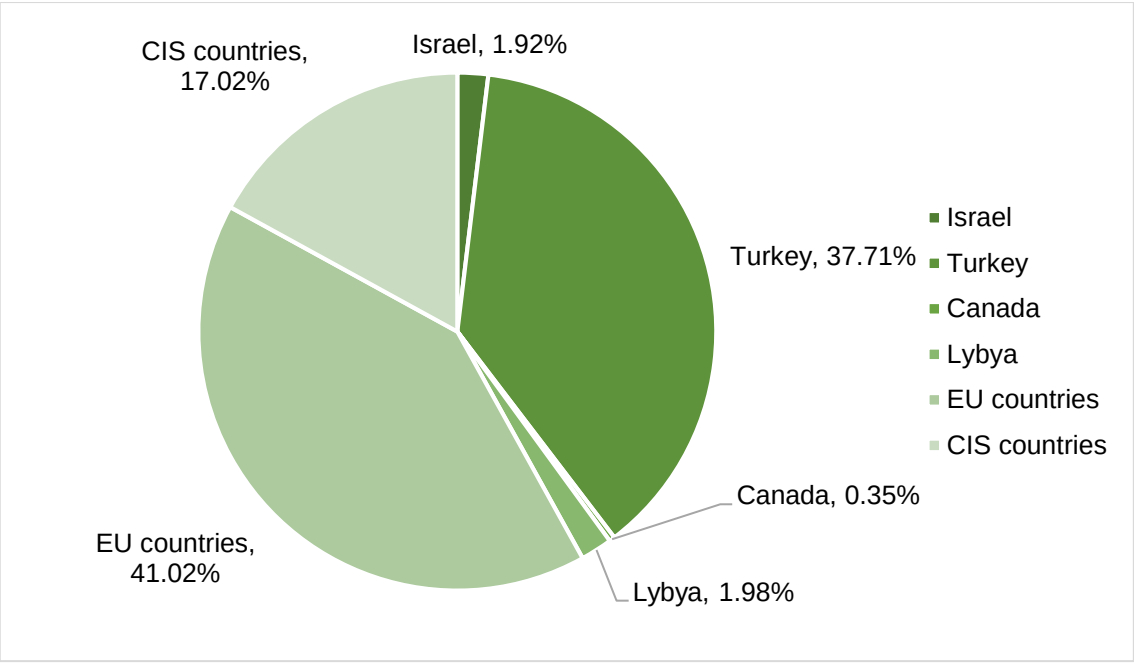

Figure 2: Export share of LLC "Kolibri" in 2015

The competition conditions in international markets often make the enterprise reform its organizational structure or reduce the expenses. The restructuring can take place in some form of cooperation with other enterprises.[26]

The expenses can be reduced by turning to cheaper sources of components and raw materials. This cooperation allows SBC "Kolibri" to avoid significant investments in fixed capital, as well as to reduce the number of expenses.

The main direction for finding cheap sources of components and raw materials was Asia. This search lasted more than five years and has some results for today. For example, in the year 2012, 5,000 oars units were ordered for LLC “ROTOFORM” from the city of Guangzhou, China. This helped to meet the annual need for components and to establish a promising connection with suppliers in the long-term form, as the suppliers over 2 years are interested in the components quality and offer other components that might be of interest to SBC “Kolibri”. For convenient transportation of orders LLC “Kolibri” is using container transportation from the city of Shanghai. Thus, the transportation of raw materials and components is carried out by sea.

Recently there has been observed a devaluation of the dollar to the euro. This becomes a push of the company to reduce the expense of resources to search for new suppliers from Asia and focus on the existing ones because the raw materials and components are bought for dollars in Asia, and euro in Europe. The main supplier of raw materials from Europe is LLC “MEHLER”, whose production facilities are located in Germany and the Czech Republic. More than 50% of all raw materials come from this company. The difference in the cost between suppliers from Asia and LLC “MEHLER” is slight as the advantage of the Asian to date. However, from a logistics point of view, there is another important factor. It takes about 45 days to deliver the container of raw material from Asia, and other 15 days are spent on finished products production. So, the implementation of the spent money begins approximately 2 months after the raw materials ordering. The raw materials from Germany and the Czech Republic are transported by trucks within 4-5 days. Accordingly, the time of the implementation of the spent money is reduced by 10 times.

The model of the international flows in the structure of LLC “Kolibri” logistics can be presented in Fig. 3.

[26] Chernyshev M., Korotkov E., Soldatova I. (2006). *Fundamentals of Management*. P. 109

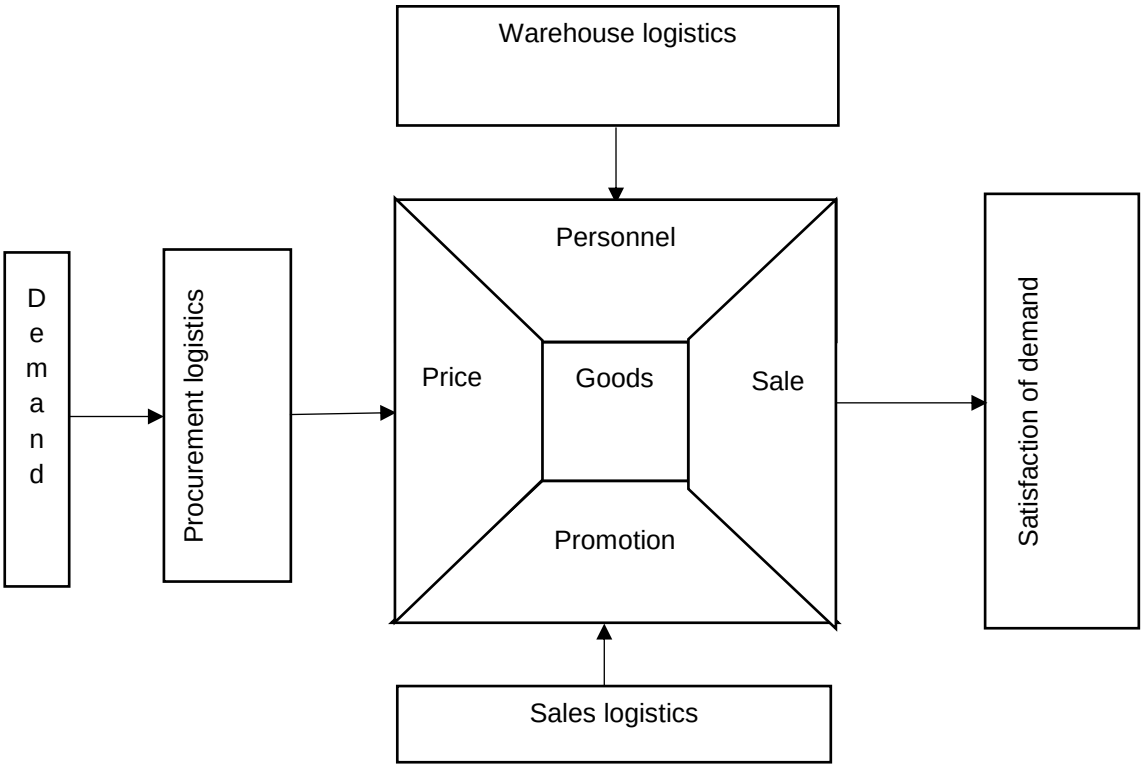

Figure 3: Model of international flows in the logistic structure of LLC "Kolibri"

This model shows the synthesis of international flows and marketing, which is explained by the following reasons:

– competition in the Ukrainian market is becoming tighter, which leads to the marketing active using;

– significant structural changes in the enterprise lead to the distribution of target markets and force constantly to seek new market opportunities;

– the fairly widespread practice of unscrupulous business increases the ranking of trustworthy suppliers and provides them with a sufficiently long sympathy of the client base;

– the ever-increasing diversity of distribution channels reinforces the impact on the consumer market.

In this regard, international transportation should be based on the use of marketing information, since in the context of the orientation of the enterprise activity to market relations, this issue must be considered from the standpoint of a marketing information system whose purpose is to reduce uncertainty in the process of making manager decisions.

The need for useful and reliable information is increased as enterprise encounter uncertain and changeable situations in the conditions of market relations formation.[27]

The aggregate of flows of primary and secondary information in LLC “Kolibri” commercial logistics is shown in Table 2.

FLOWS OF PRIMARY INFORMATION	FLOWS OF SECONDARY INFORMATION	
	FLOWS OF SECONDARY EXTERNAL INFORMATION	FLOWS OF SECONDARY DOMESTIC INFORMATION
- Buyers survey. - Survey of sales staff. - Surveillance results of buying behavior. - Procurement Conduct Materials (Survey Results). - Information obtained as a result of personal contact with competitors, suppliers	- Statistical and accounting reporting. - Information on work with suppliers (supply agreements, vendor accounting logs). - Information for the detailed study of suppliers' activities (rating of suppliers). - Materials for studying the demand of buyers (accounting and analysis of dissatisfied demand, data on the study of intra-group structure of demand, operational accounting of sales of goods, etc.). - Information on the results of market segmentation and consumer typology. - Materials for studying the activities of competitors in the field of commodity, pricing, marketing and communication policy. - Commodity Extension Documents. - Operational information.	– Periodicals. – Advertising messages on radio and television. – Catalogs, brochures, prices, press releases. – Information on quotations of currencies. – Information and analytical newsletters. – Legislative acts and normative documents. – Information on the market situation and its trends, market capacity, supply-demand ratio. – Vendor Information. – Information about competitors. – Consumer information. – Results of marketing research by commercial organizations. – Study of trends in business activity commercial partners.

Table 2: A set of primary and secondary information flows in commercial logistics of LLC "Kolibri"

Information logistics in LLC “Kolibri” commercial activity organizes a data flow that accompanies the goods flow and for the enterprise is the link that connects purchases, warehousing, and sales. It covers the management of all processes of goods movement at the enterprise, allows ensuring timely delivery of the required quantity of these goods, complete set, and quality from the places of their occurrence to places of consumption with optimal expenses and proper service.

To provide a flexible, customer-oriented logistics system, it is necessary that the physical system operates in parallel with the information system.

[27] Chernyshev M., Korotkov E., Soldatova I. (2006). *Fundamentals of Management*. P. 167

In the researching process of the information flows in the implementation of LLC “Kolibri” international transportation the degree of use of various types of information by analyzing their usefulness, as well as the need for more information, are been defining (see Appendix B).

Appraisal of Appendix B indexes occurs on a five-point scale, in which the highest score is assigned as the best result.

Thus, LLC “Kolibri” uses the secondary external information the most, but precisely the flows of primary information have the most important need for the acquisition of more information.

The necessity of using in an enterprise commercial activity of various and significant volume of information requires the creation of a marketing information system in the commercial logistics. This system will allow significantly increasing the speed of information transmission, react in a timely manner to changes in the external environment, coordinate the marketing strategy, and reduce the level of commercial risk, as it becomes possible to avoid potentially expensive errors before the expenses become too high, and goods that can become too expensive, will cause significant damage to the entire enterprise.[28]

The marketing information system in the commercial logistics is presented by security and functional subsystems. The main elements of the security subsystem are the technical support (a set of technical tools that provide processing and transmission of the information flows), the information support (flows of primary information, secondary external information and secondary internal information), methodological support (a set of general scientific, analytical and prognostic techniques that provide execution of goods flows management tasks), as well as data systematization (compilation of data bank on the enterprise marketing environment state, cumulative cards about suppliers, intermediaries, competitors, customers).

In its turn, the functional subsystem consists of planned, dispositive and executive information systems, which provide a decision-making on the commercial logistics management at different levels of enterprise management based on the received information.

[28] Chernyshev M., Korotkov E., Soldatova I. (2006). *Fundamentals of Management*. P. 201

Planned information systems are formed at the highest level of the management apparatus (a directorate, general director) and are the basis for strategic decision making.[29]

Among the tasks performed by LLC “Kolibri” can be distinguished the following: creation and optimization of logistics system links, sales planning, overall inventory management, purchasing activity coordination, demand prediction.

A dispositive information system is created at the level of management of individual functional divisions of the enterprise (the head of the marketing department, the head of the sales department, chief accountant) and performs the following tasks: goods inventory management, selection and evaluation of suppliers, the ensuring the normal functioning of storage and transportation systems, selection of distribution channels, the formation of orders for the supply of goods, etc.

An executive information system is created at the level of operational management (employees of the functional divisions) and is designed to receive and process information about the goods movement at the given time. These systems can settle a variety of tasks: control of goods flows, accounting for the receipt and sale of goods, accounting for the implementation of contractual obligations, operational management of inventories, etc.

Thus, the importance of the information logistics system in international carriages LLC “Kolibri” consists in the fact that it unites into a single whole the functional branches of commercial logistics, providing the internal interconnection and integrity of this system.

2.3 Analysis of financial condition and basic technical and economic indices of LLC “Kolibri”

The subject of technical and economic analysis is the production, economic and financial activity of the enterprise, which is reflected in the economic information system provided by statistical and operational accounting, and bookkeeping. The technical and economic analysis is aimed at evaluating the final results of the enterprise for a certain period, as well as studying the factors that have formed them.

[29] Chernyshev M., Korotkov E., Soldatova I. (2006). *Fundamentals of Management*. P. 207

The final result may be characterized by the enterprise financial condition, the mass of the profit (economic result), the volume of produced and sold products (production result), and the level of technical and social development.[30]

The listed results are interrelated since they reflect the effectiveness of activities in the financial, economic, production and social spheres. For example, a stable financial position can be provided by an increase in capital at the expense of own or borrowed funds, which an enterprise can afford only in the event of high production and economic outcomes. In turn, the achievement of the competitiveness of goods produced, performed works and services provided is impossible without positive results in the technological and organizational development of the enterprise. Social programs implementation is impossible without high economic results, which depend on the efficiency of the use of basic productive assets, labor, and circulating assets, in turn.[31]

Each technical and economic process is being formalized by a whole set of interrelated indices. The considered indices require grouping and systematization.[32]

The calculations of the main technical and economic indices, indices of financial condition and profitability of production for the period 2011-2015 were realized using the accounting records of LLC “Kolibri”, in particular, Form № 1 “Balance” and Form № 2 “Financial Results” (see Appendix C). Tables of calculated indices for period 2014-2015 are listed below. Full technical and economic analysis of the enterprise for the period from 2011 to 2015 one can see at Appendix D.

Index	Unit	Deviation			
		2014	2015	absolute deviation	relative deviation in %
1. Average cost of the total capital	Thsd. UAH	15196,65	21747	6550,5	43,1
2. Average cost of the equity	Thsd. UAH	4225,65	3668,25	-557,4	-13

Table 3: The dynamics of development of total and equity capital of LLC "Kolibri"

The dynamics of development of total and equity capital is presented in Fig. 4 and 5. The total and equity capital are complementary values, so they need to be considered together. The total capital includes equity, borrowed and attracted capital.

[30] *Technico-economic indicators of the company's operation*, in: Svitohlyad. URL: http://svitohlyad.com.ua/biznes/tehniko-ekonomichni-pokaznyky-roboty-kompaniji/ (3.09.2017)

[31] Bolyukh M., Burchevsky Z. (2003). *Economic analysis*. P. 308

[32] Bolyukh M., Burchevsky Z. (2003). *Economic analysis*. P. 312

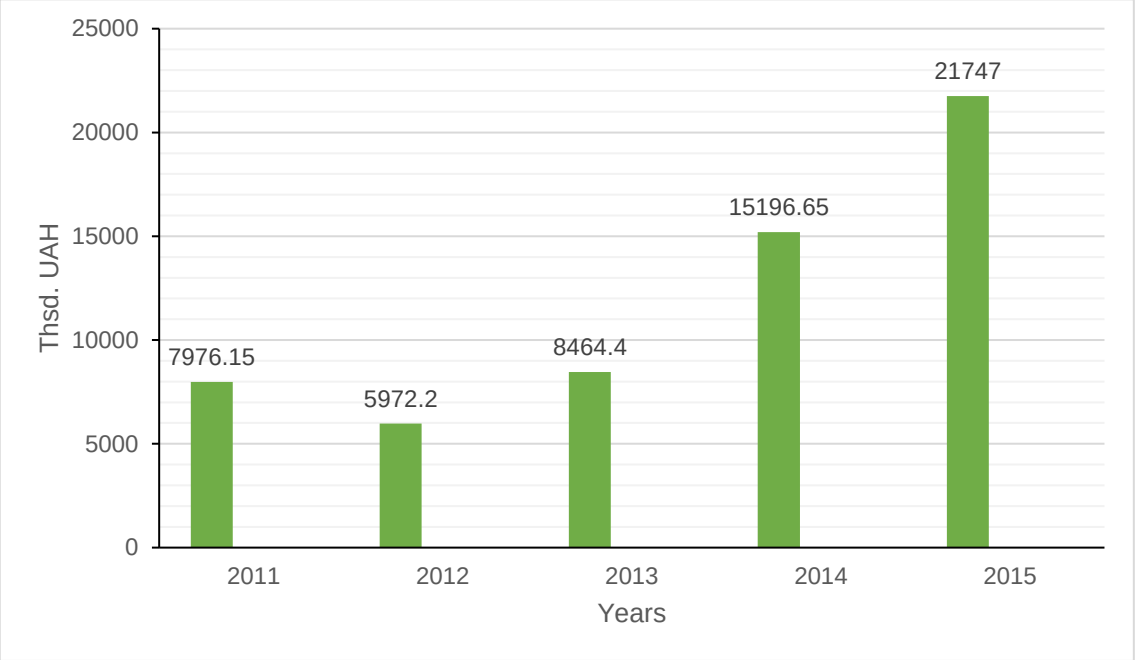

Figure 4: The dynamics of development of total capital of LLC "Kolibri"

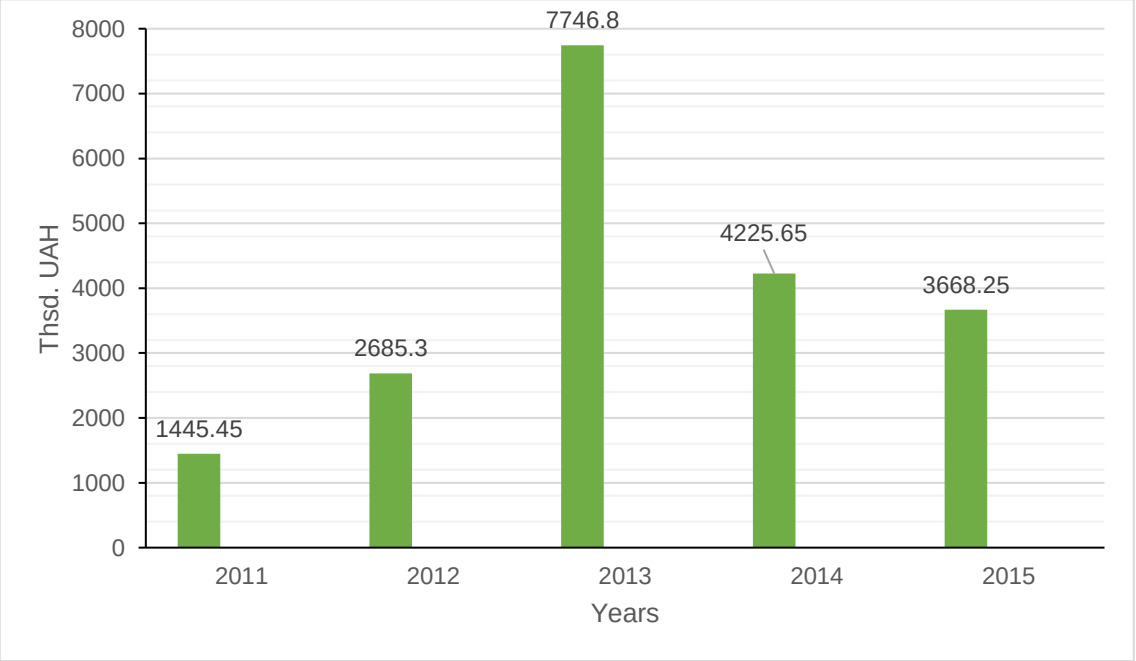

Figure 5: The dynamics of development of equity capital of LLC "Kolibri"

From the data obtained, we can draw a conclusion on the development of equity and total capital. The average value of the total capital was UAH 7,976.15 thousand in 2011, of which UAH 1,445.45 thousand was the part of equity capital (18% of the total capital). The peak was in 2013 when the part of equity capital in the total amounted to UAH 7,746.8 thousand (91.5%), that is, borrowed funds amounted to only 8.5%, which enabled the company to develop actively at its own expense. In 2015 the part of equity

capital fell from 2014 to 13% (UAH 557.4 thousand) and amounted to UAH 3,668.25 thousand (17% in total capital). This indicates that the part of borrowed funds in the total capital has increased significantly at “Kolibri” enterpise. Each enterprise has resources that can be labor, material, and financial. The resources dynamics of LLC “Kolibri” for the period 2014-2015 is shown in Table 4.

Index	Unit	Deviation			
		2014	2015	absolute deviation	relative deviation in %
1. Average residual value of fixed assets	Thsd. UAH	14,6	16,75	2,15	14,8
2. Average value of current assets	Thsd. UAH	15182,05	21732,05	6748,2	31
3. Average number of employees	People	36	42	6	17

Table 4: The resources dynamics of LLC “Kolibri”

After analyzing the development dynamics of the residual value of fixed assets LLC “Kolibri” shown in Fig. 6, one can conclude that all fixed assets belonging to the enterprise are morally and physically obsolete since the residual value is calculated as the difference between the initial cost and the depreciation rate for the given period. That is, all fixed assets (machines, auxiliaries, computers, etc.) have not been updated since 2011, this led to an increase in the depreciation rate, which resulted from a sharp drop in the residual value of fixed assets from UAH 204.05 thousand in 2011 to UAH 16.75 thousand, the decrease is 92%. If the downward trend continues, it can lead to a complete cessation of the work of the equipment.

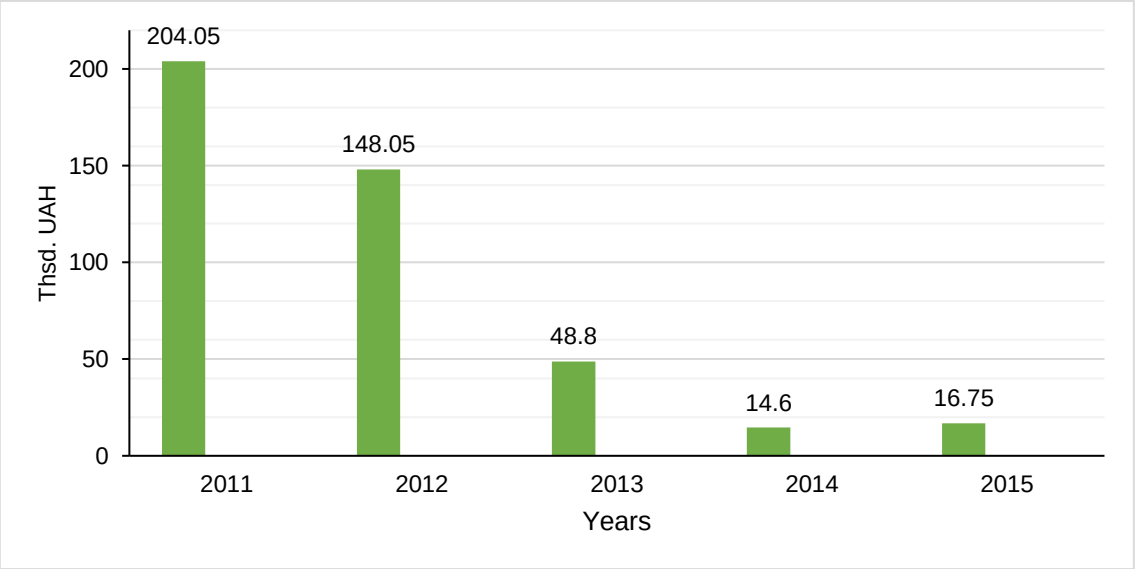

Figure 6: The development dynamics of the residual value of fixed assets LLC “Kolibri”

Considering of the development dynamics of the current assets value, shown in Fig. 7, one can conclude that there is an increase from UAH 7,769.65 thousand since 2011 to UAH 21,730.25 thousand in 2015. The value of current assets over the past three years has increased by an average of 150%.

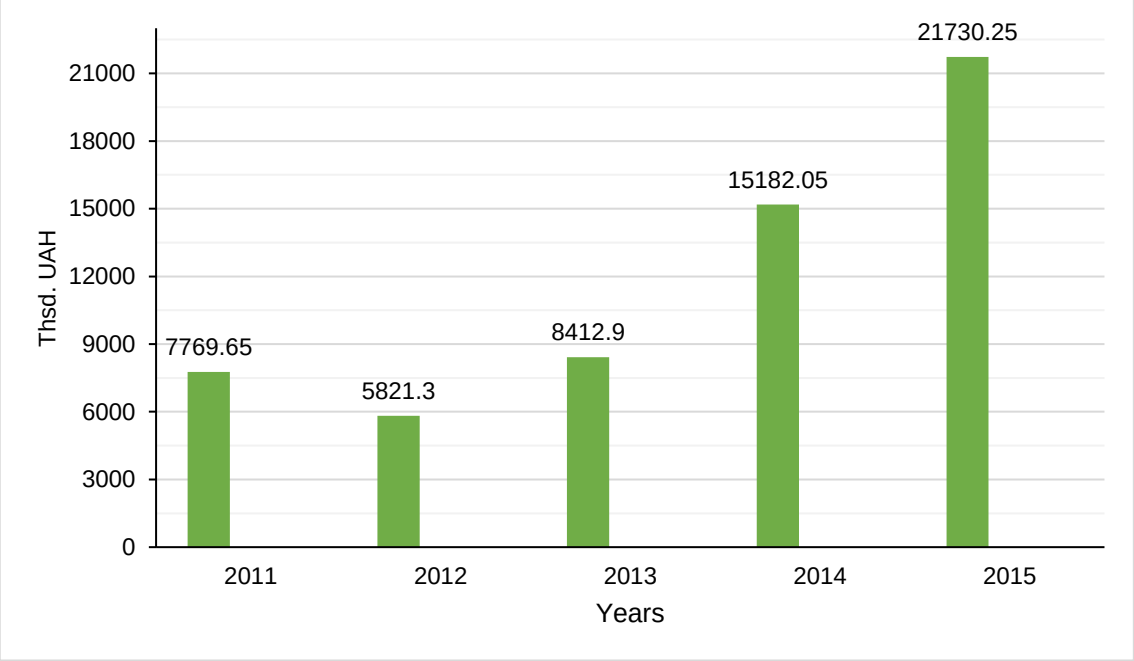

Figure 7: The development dynamics of the current assets value LLC "Kolibri

The last index which refers to enterprise resources is employees. The number of employees increases in the average according to analyzing the period of 2011-2015. The average number of employees increases by 24% from 2011 to 2015.

It is shown in Table 5 the main economic indices namely the net profit from sales and cost of production.

Index	Unit	Deviation			
		2014	2015	absolute deviation	relative deviation in %
1. Net income (revenue) from sales of products	Thsd. UAH	25971,3	38583,2	12611,9	48,6
2. Cost of sales	Thsd. UAH	21907,1	32694,7	10787,6	49

Table 5: The main economic indices LLC "Kolibri"

Let's consider separately the development tendency of income from sales (Fig. 8) and the cost of sold production (Fig. 9).

In Fig. 8 one can observe how the income from sales of products increases from UAH 22,786.1 thousand in 2011 to UAH 38,582.2 thousand in 2015. From 2011 to 2013, the growth of sales revenue on average was 10%, that is, stability was tracked without sharp leaps. Only in 2015, there was a significant leap which amounted to UAH 38,583.2 thousand in 2015, and the relative deviation (relative to 2014) amounted to 48.6%. The reason for the significant growth in 2015 is the expansion of the target market, in this case, the entry into the international market and the increase manufactured products in volumes.

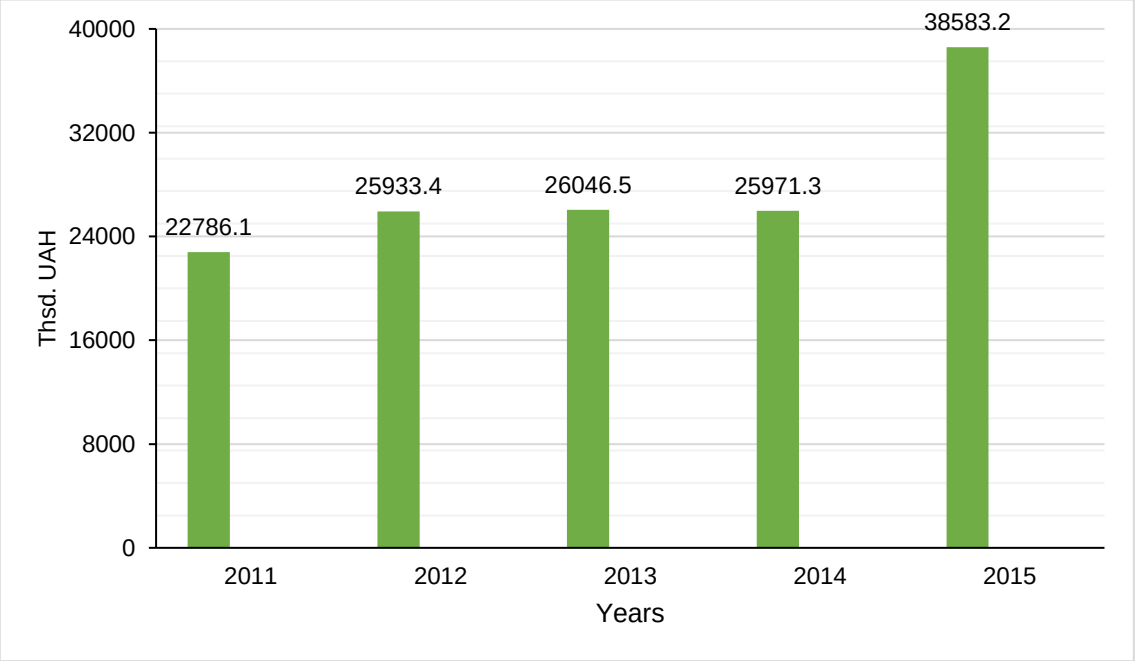

Figure 8: The development of income from sales of products LLC "Kolibri"

Considering the development dynamics of production costs shown in Fig. 9, it is possible to summarize that in 2015 there was a significant leap in comparison with 2014, which amounted UAH 32,694.7 thousand. The reason for the index raising is the fuel prices and labor costs increase as a consequence of the exit of LLC “Kolibri” to the international market.

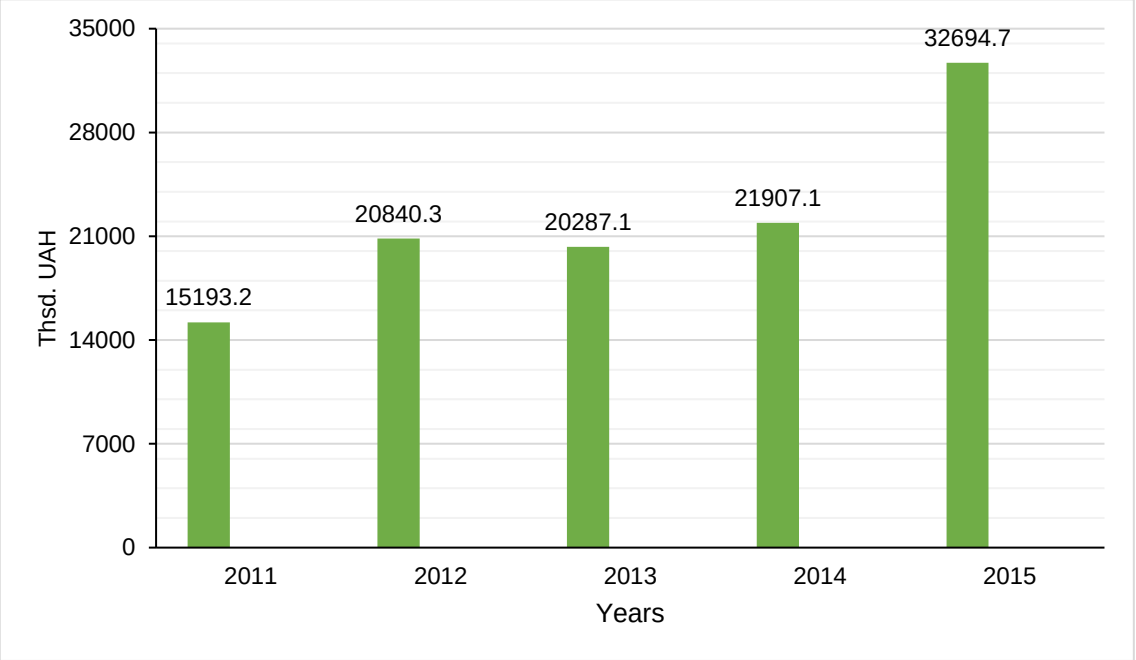

Figure 9: The development of production costs LLC "Kolibri"

Consider the financial performance indices of LLC “Kolibri” given in Table 6.

Index	Unit	Deviation			
		2014	2015	absolute deviation	relative deviation in %
1. Gross profit (loss)	Thsd. UAH	4064,2	5888,5	1824,3	44,9
2. Net profit (loss)	Thsd. UAH	185,9	600,3	414,4	223

Table 6: The financial performance indices of LLC “Kolibri”

In Fig. 10 depicts the dynamics of gross profit development. There is a stepped decline in the period from 2011 to 2014. The enterprise began to receive less income from the sale of products without taking into account current expenses, but in 2015 there is a significant increase over the last three years and is UAH 5,888.5 thousand, which is 44.9% more than in 2014.

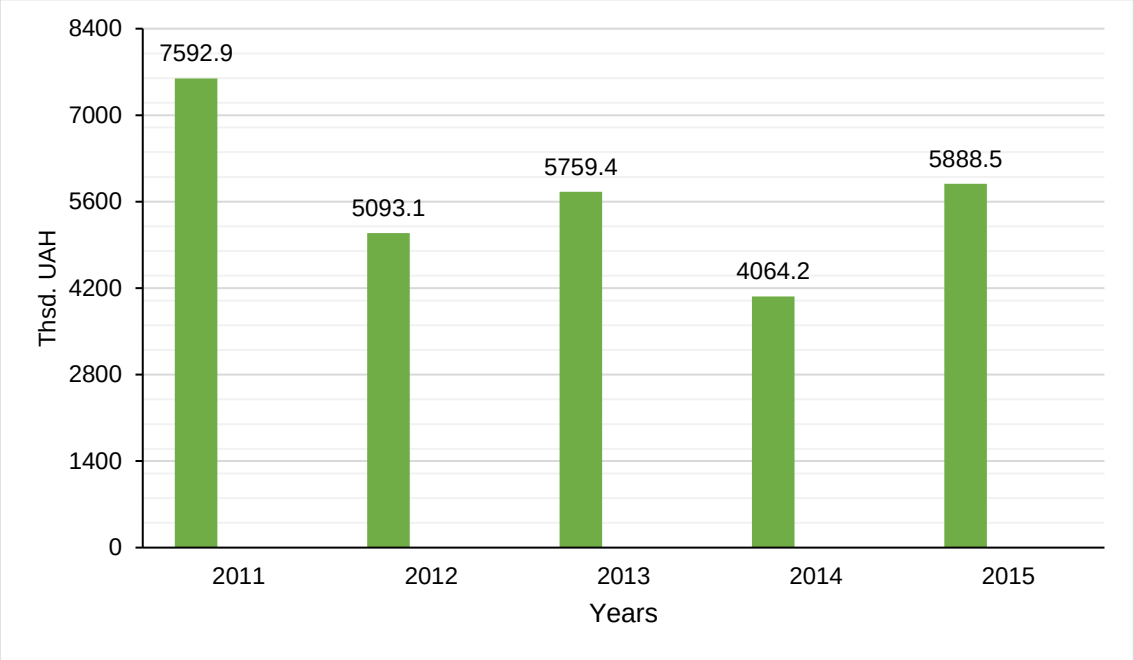

Figure 10: The dynamics of gross profit development of LLC "Kolibri"

Profitability of an enterprise is the money that the company receives after the formation of the wage fund, the payment of taxes, deductions and obligatory payments to the budget and banks.[33]

After analyzing the dynamics of net profit development (Fig. 11) it can be concluded that “Kolibri” net profit is rather unsteady since the products produced by the company are not of paramount importance. A peak of profitability of the enterprise is observed in 2012 and makes UAH 1,857.6 thousand. The lowest point of profitability of the enterprise was recorded in 2014. It can be linked to the political and economic situation in the country. In 2015, net profit amounted to UAH 600.3 thousand, which is 223% more than in 2014, that is, the financial condition of the enterprise has improved significantly.

[33] Chumachenko, M. (2003). *Economic analysis*. S. 170

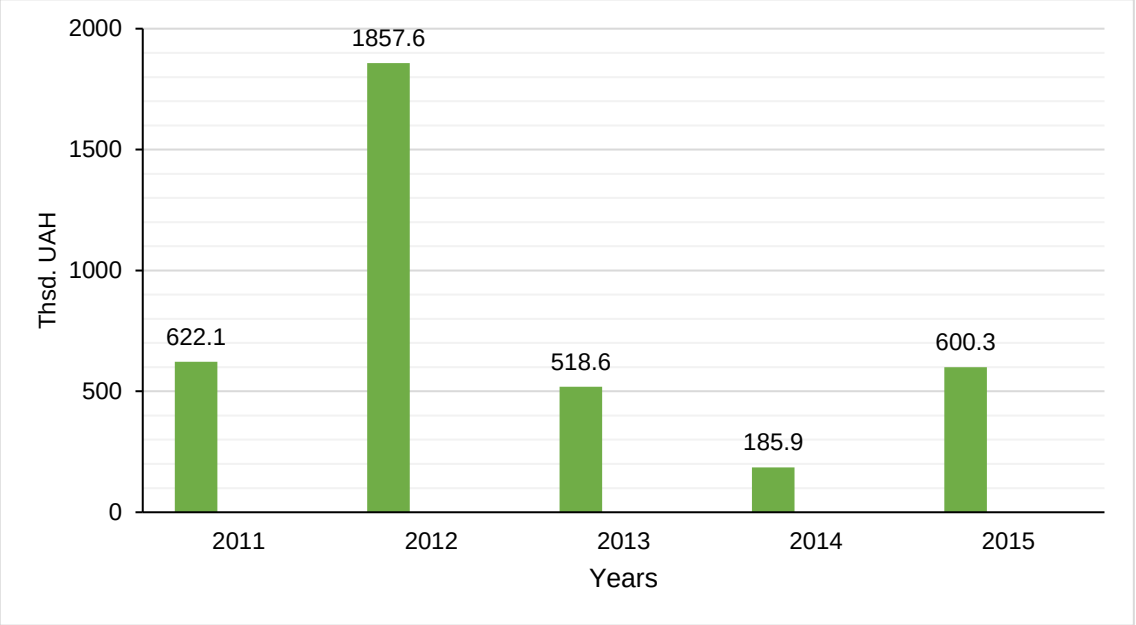

Figure 11: The dynamics of net profit development of LLC "Kolibri"

It is shown the development dynamics of the coefficient of convertibility of current assets (funds) in Fig. 12. The coefficient of convertibility of current assets (funds) characterizes the rationality and intensity of use of available resources of the enterprise. The success and profitability of the company depend just on that. This coefficient shows how much gain from sales of products per UAH 1 of current assets, which clearly demonstrates the return that we receive from the convertible funds.[34]

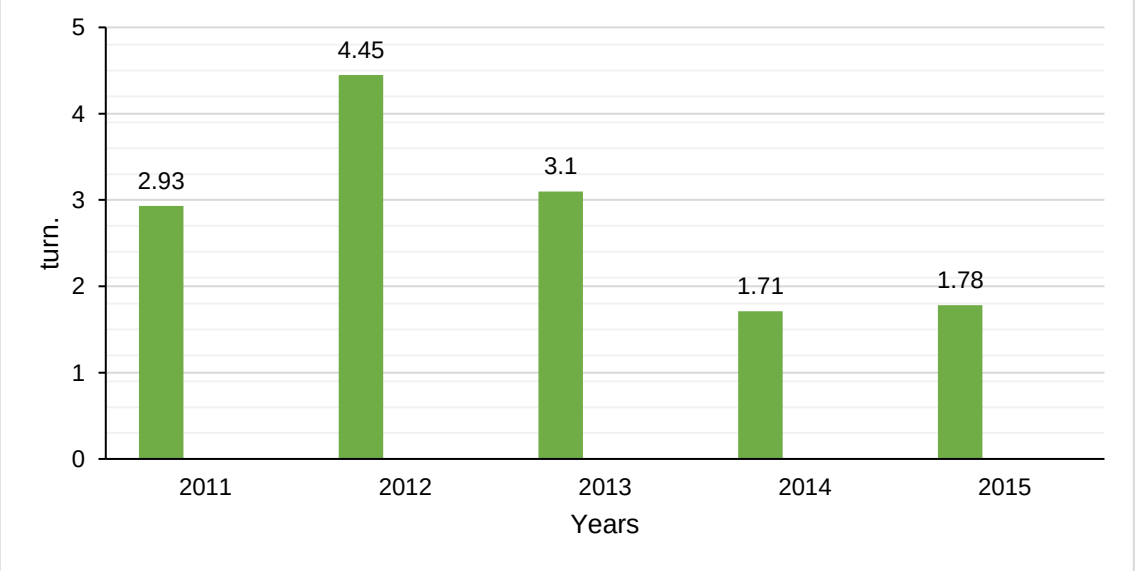

Figure 12: The coefficient of convertibility of current assets development of LLC "Kolibri"

[34] Ilyina S., Zhurba T. (2008). *Controlling processes of economic activity and food industry.* P. 304

In Fig. 12 there is a significant decline since 2012. It was during this period the company was restructured and a shipbuilding company (SBC) “Kolibri” was created. Also, it was implemented the transition from a production-oriented company to a marketing-oriented one. Reasoning from this, the main priority of the company's work became the consumer and satisfaction of his needs. In the same period, a decision was taken regarding the development of plastic vessels developed by the method of rotary formation. All these implementations are aimed at a long term since from the end of the previous century it was discovered that the marketing orientation of the company is more productive than production one.

In Table 7 the indices of effective use of resources are given.

Index	Unit	Deviation			
		2014	2015	absolute deviation	relative deviation in %
1. Turnover ratio of current assets	Turn.	1,71	1,78	0,07	0,07
2. Average duration of turnover of current assets	Days	210,5	202	-8,5	-4
3. Labor productivity	Thsd. UAH/ People	721	918	197	27
4. Capital productivity	UAH/ UAH	1778,9	2303,5	524,6	29,5
5. Capital intensity	UAH/ UAH	0,0006	0,0004	-0,0002	-33
6. Capital-labour ratio	Thsd. UAH/ People	0,41	0,4	-0,01	-2,4

Table 7: The indices of effective use of resources of LLC "Kolibri"

In other words, there is a transition to a fundamentally different level: the nature of production changes, new methods and technologies are introduced.

The dynamics of the development of the average duration of turnover of current assets (funds) is shown in Fig. 13. This index shows the time for which the convertible funds make 1 turn. The smaller one turn, the more effective the current assets used.[35]

[35] Ilyina S., Zhurba T. (2008). *Controlling processes of economic activity and food industry.* P. 304

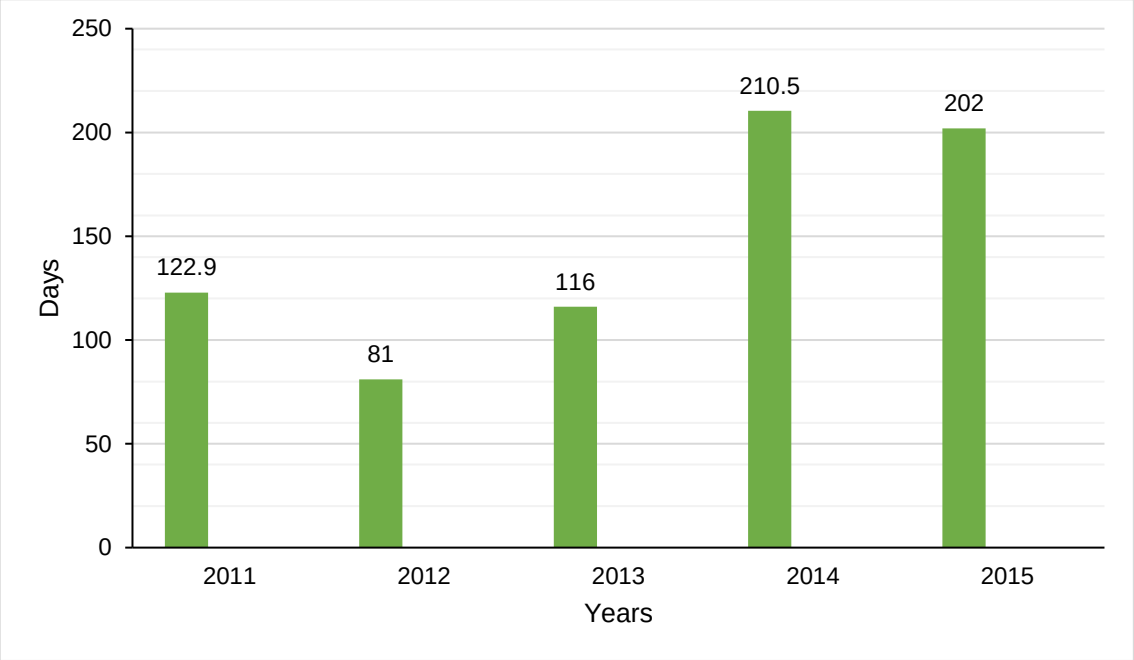

Figure 13: The average duration of turnover of current assets development of LLC "Kolibri"

The duration of the turn was 202 days in 2015, which is less by 4% than in 2014, but compared to 2013, it increased by 86 days (74%). It should be noted that the duration of the turnover of current assets is inversely proportional to the coefficient of convertibility of current assets, i.e., the lower coefficient of convertibility (1.71 turns in 2014) the longer is duration the turnover of these funds (210.5 days in 2014) and vice versa. The higher coefficient of convertibility is (1.78 times in 2015), the shorter duration of the turnover (202 days in 2015).

In Fig. 14 one can observe the dynamics of the development of labor productivity. This index grows over five years.[36]

[36] Ilyina S., Zhurba T. (2008). *Controlling processes of economic activity and food industry.* P. 304

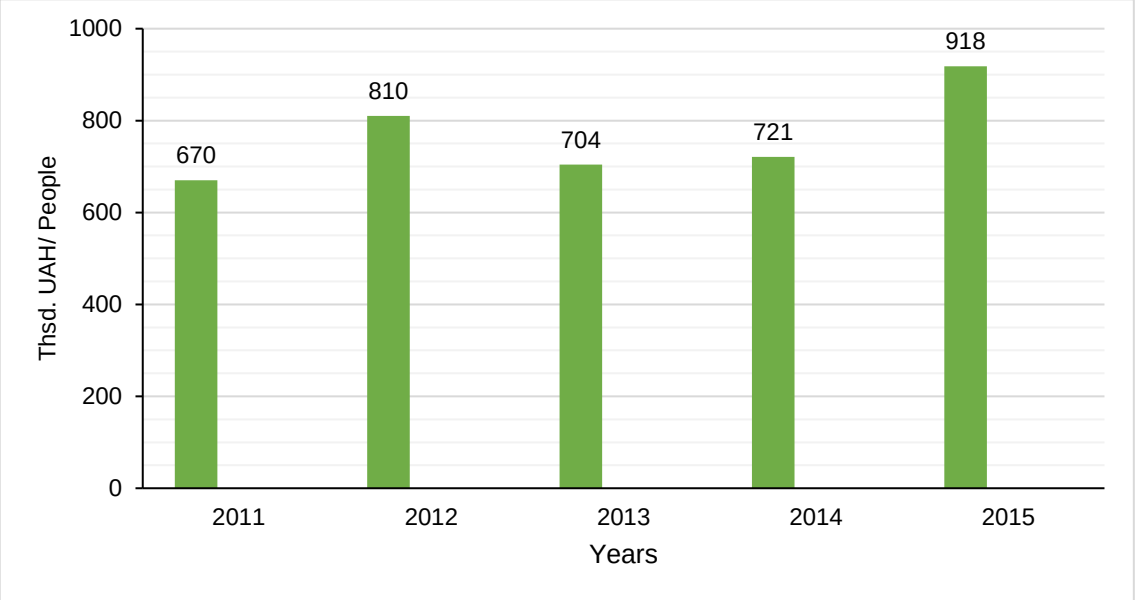

Figure 14: The development of labor productivity of LLC "Kolibri"

Output-capital ratio is an index that illustrates the overall return on the use of each UAH, which is invested in fixed assets, that is, the efficiency of the investment of the funds. The output-capital ratio should tend to increase under normal conditions, which we can observe on Fig. 15. On the basis of this, it can be concluded that the main funds of the enterprise are used effectively.[37]

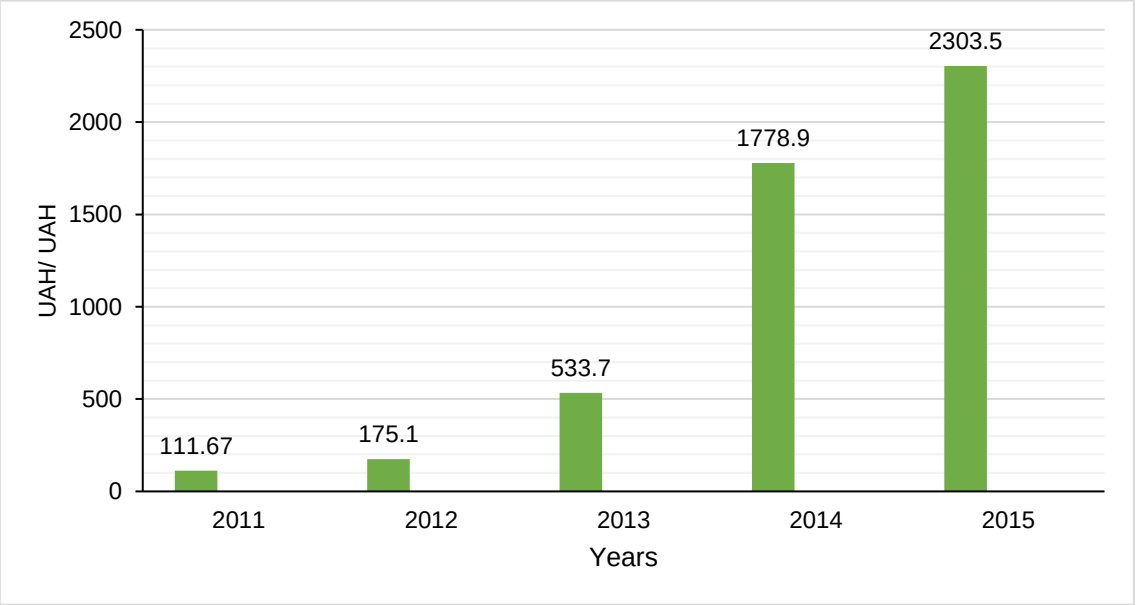

Figure 15: The output-capital ratio of LLC "Kolibri"

[37] *Financial analysis. Capital productivity,* in: The financial analysis. URL: http://1fin.ru/?id=311&t=25 (3.09.2017)

Capital-output ratio is a contrary index of output-capital ratio and shows how much of fixed assets are on each UAH of finished goods.[38]

The capital-output ratio should tend to decrease under normal circumstances, which we can observe in Fig. 16. The smaller this index, the more efficiently used equipment at the enterprise.

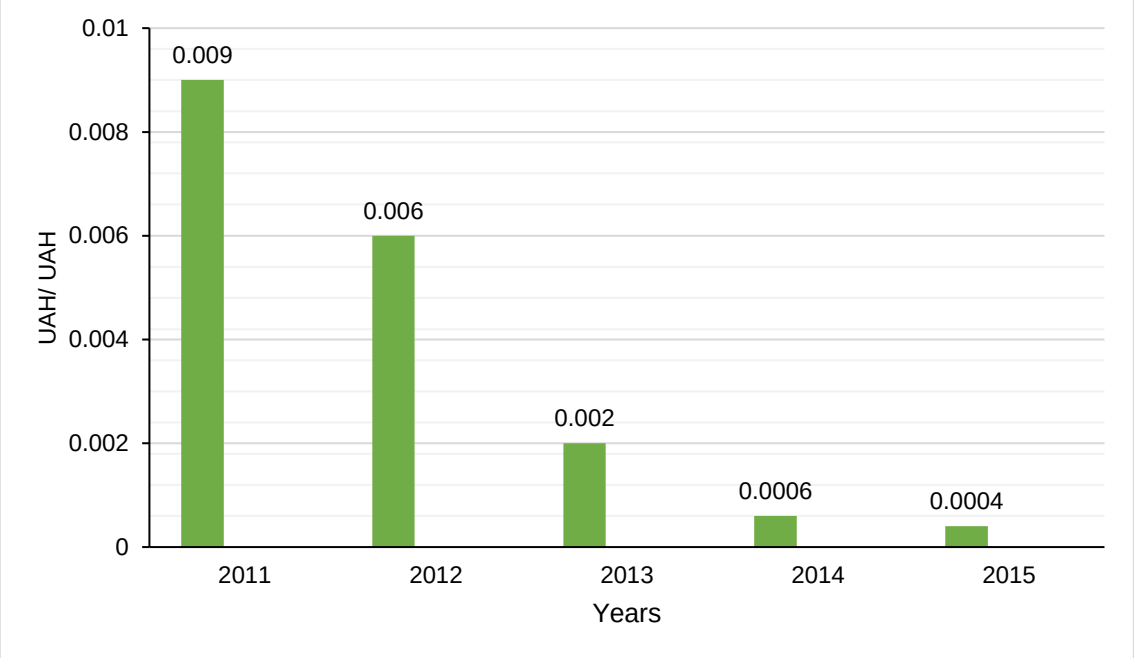

Figure 16: The capital-output ratio of LLC "Kolibri"

The capital-output ratio at the “Kolibri” enterprise continuously drops from 0.009 UAH/UAH in 2011 to 0.0004 UAH/UAH in 2015.

With regard to capital expenditure, this index tends to decrease, which indicates that the company loses a high level of technical equipment. It was UAH 6 per person in 2011, and UAH 0.40 per person in 2015, which is 93% less. The reason for this may be the physical and moral wear of the equipment.

The last index, which can characterize the efficiency and intensity of the enterprise work, is profitability.

[38] *The financial analysis. The capital intensity,* in: The financial analysis. URL: http://1fin.ru/?id=311&t=39 (3.09.2017)

Profitability is one of the main indices that characterize the degree to which capital is used in the production process and the level of assets return. Profitability is directly related to profit and is a relative index, i.e. measured in percentages.[39]

Profitability indices of production, products, and sales at LLC “Kolibri” are given in Table 8.

Index	Unit	Deviation			
		2014	2015	absolute deviation	relative deviation in %
1. Operational profitability	%	0,01	0,03	0,02	200
2. Product profitability	%	0,008	0,018	0,01	125
3. Sales profitability	%	0,007	0,016	0,009	128,6

Table 8: Profitability indices of LLC "Kolibri"

Having a look at Fig. 17, we can conclude that the profitability of the production of LLC “Kolibri” started to decline beginning in 2012. The result may be an increase in the cost of production, that is, the use of higher quality expensive materials, the rise in the electricity price, which is needed for production, and wages.

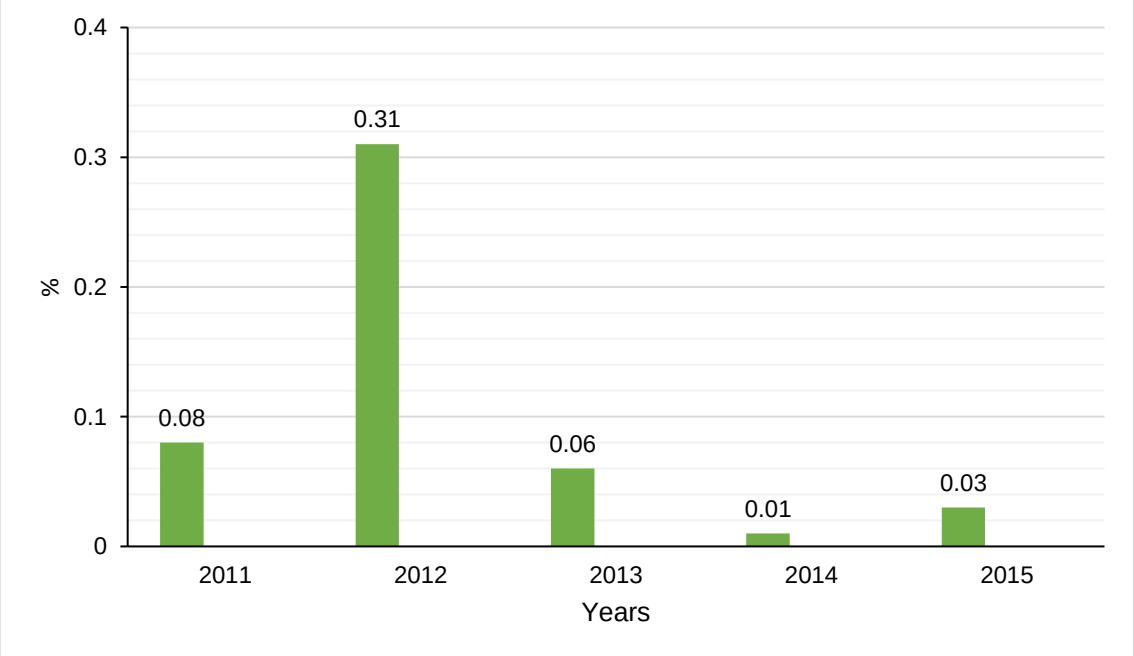

Figure 17: The profitability of the production of LLC “Kolibri”

Consider the Fig. 18 which shows the dynamics of product profitability development. The dynamics of products profitability development is a quotient of the division of net profit

[39] Ilyina S., Zhurba T. (2008). *Controlling processes of economic activity and food industry.* P. 289

and the cost of sales.[40] According to it, the profitability peak was in 2013, which means that the peak of profit was observed this year. The reason for this can be the expansion of the products range that was produced.

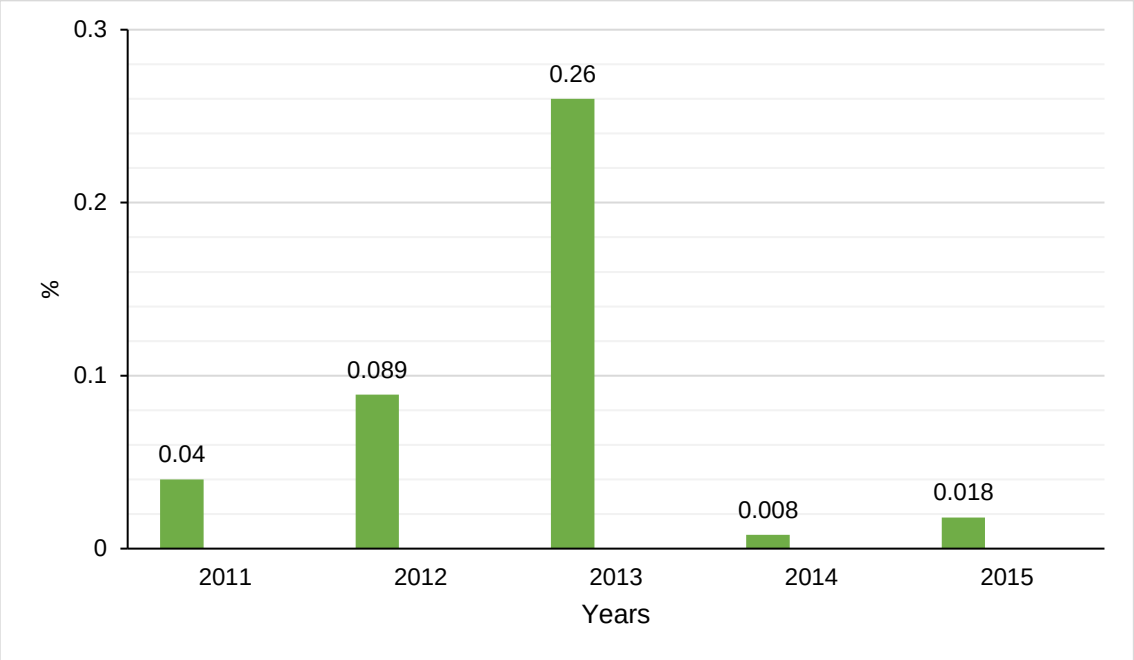

Figure 18: The profitability of the product of LLC “Kolibri”

In Fig. 19 one can observe the dynamics of sales profitability development at LLC “Kolibri”. Sales profitability is a coefficient that is calculated as the ratio of income from product sales to the amount of net profit. The profitability ratio of sales links the operational and strategic activities of the company since it characterizes the profitability of the operating activity of the enterprise.[41]

[40] Ilyina S., Zhurba T. (2008). *Controlling processes of economic activity and food industry.* P. 289
[41] Ilyina S., Zhurba T. (2008). *Controlling processes of economic activity and food industry.* P. 289

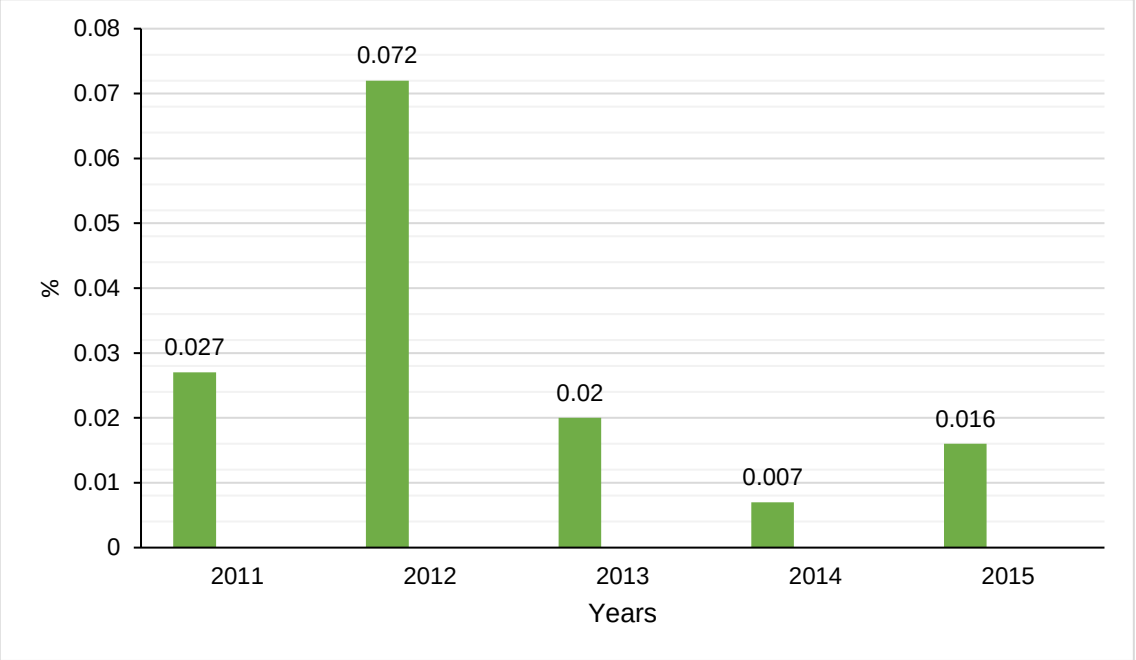

Figure 19: The profitability of sales of LLC “Kolibri”

The peak of sales profitability was in 2012. Beginning from 2012 there is a downturn that is associated with prices decreasing and changes in the structure of the sales range.

2.4 SWOT analysis of LLC “Kolibri” activity

Analysis of strengths and weaknesses of the enterprise, in other words, SWOT analysis that can give a complete picture of the company's position on the market, its threats and opportunities that should not be neglected at present, is insignificant in terms of material and physical costs, easy to implement and use, and is the effective one.[42]

Initially, the SWOT analysis was based for knowledge structurization about the current position of the enterprise, market situation and development trends. It was only later that the term was used in a broad sense for strategies constructing. That is, with the SWOT analysis appearance the analysts have received an instrument for their intellectual work.

The SWOT analysis consists in identifying the connection between opportunities, strengths, weaknesses, and threats of the enterprise by comparing the goods manufactured by the enterprise with the competitor's ones. Based on the SWOT

[42] Osovskaya G. (2005). *Management of organizations.* P. 221

analysis, an enterprise can evaluate its capabilities and form an effective strategy of market conquest.[43]

The SWOT analysis methodology use is proposed for assessing the enterprise competitiveness, marketing organization, the level of employees’ qualification and a number of manufactured products. Various SWOT analysis modifications that enable to broaden the scope of its application are used for this.

The main tasks of the SWOT analysis are to identify the strengths and their comparisons with the capabilities of the enterprise for the further effective functioning on the market, to identify weaknesses and developing strategic directions to overcome them, to identify opportunities that are relevant to existing enterprise resources, to identify threats and to develop measures to their effectively decision.

It should be remembered that SWOT analysis is only a convenient tool for available information systematizing, so an effective SWOT analysis should start with two actions:

1. Conducting a market analysis on which the enterprise operates. It is necessary to pay close attention to the study of consumers and to find out the goods key characteristics. From the one who is the target audience of the enterprise, which quality criteria are required by the goods consumer more than 70% of the findings of the SWOT analysis are dependent.

2. Competitive analysis implementation and key competitors identify. From the competitors identifying depends on the finding of the strengths and weaknesses of the enterprise.

The first step is to establish all possible strengths and weaknesses of LLC “Kolibri”. In order to select the most important of them, one needs to analyze and answer the questions in tables 9 and 10.

[43] Balabanova, L. (2005). *SWOT - Analysis - The Basis for Marketing Strategies Formation*. P. 99

№	STRENGTHS	Does strength increase the customer satisfaction?	Does strength increase the company's profitability?	Does strength help to outrun a competitor?
1	Service	+	+	+
2	Quality	+		+
3	Broad distribution network		+	+
4	Ability to invest in development		+	+
5	Accessories	+	+	+
6	Marketing orientation of the company	+	+	+
7	Qualification of staff		+	+
8	Relative availability	+	+	+
9	Functional characteristics of products	+	+	+
10	Productivity	+	+	+

Table 9: Strengths of LLC "Kolibri"

№	WEAKNESSES	Does the weakness reduce customer satisfaction?	Does the weakness reduce profitability of the company?
1	Seasonality	+	+
2	Technological level of the company		+
3	The speed of new products		+
4	Cost	+	+
5	The quality and creativeness of advertising materials		+
6	Number of staff		+
7	The uniqueness of the sales channels	+	+
8	The sensitivity of the target audience to the rise in prices	+	+
9	Monopolization of sales channels		+
10	Lack of deficit and residual problems		+

Table 10: Weaknesses of LLC "Kolibri"

The second step is to identify threats and opportunities of LLC “Kolibri”. To do this, we need to identify all possible threats and opportunities (tables 11 and 12), as well as identify the most important of them.

№	OPPORTUNITIES	Does opportunity increase customer satisfaction?	Does opportunity increase the profitability of a company?	Are there resources for realization of the opportunity?
1	Improving of the economic climate	+	+	
2	Improving of the political climate	+	+	
3	Investing in advertising	+	+	+
4	Dealer discounts		+	+
5	Reduced cost	+	+	+
6	Export (FEA)	+	+	+
7	New product directions	+	+	+
8	Increasing the technological level of the company		+	+
9	Increasing the network of suppliers		+	

Table 11: Opportunities of LLC “Kolibri”

№	THREATS	Does threat decrease customer satisfaction?	Does threat decrease the profitability of a company?	Is there a threat within 5 years?
1	Change of the income level of the target audience	+	+	+
2	The deterioration of the country's economic situation	+	+	+
3	Technology development		+	
4	The deterioration of the country's political situation	+	+	+
5	Reduced dealer network		+	
6	Increase in duty	+	+	
7	Exchange rate instability	+	+	+
8	Change in preferences of consumer	+	+	+
9	Lifestyle change	+	+	+
10	Change in product requirements	+	+	

Table 12: Threats of LLC “Kolibri”

The third step is to compile a SWOT matrix based on the total ranking of strengths, weaknesses, opportunities, and threats. In other words, it is necessary to write down all the characteristics of the strengths, weaknesses, opportunities, and threats that have been answered "yes" in all asked questions, "+" in our case, with a relevant importance rating (see Fig. 20).

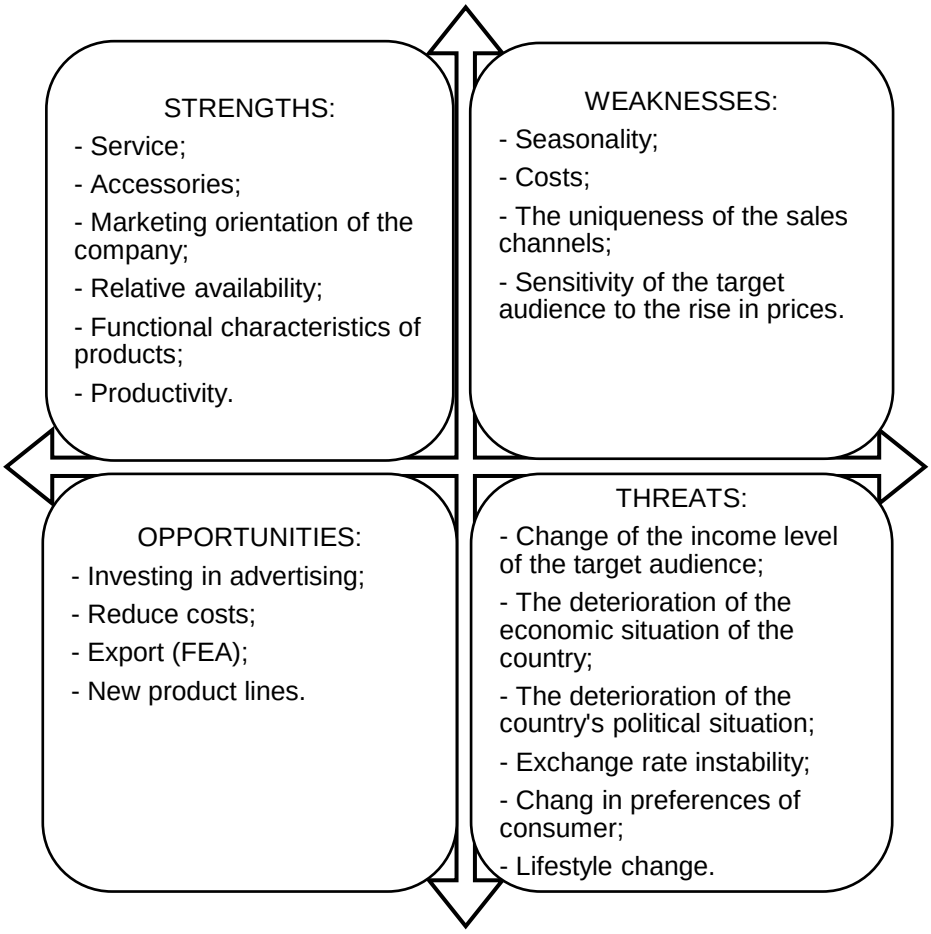

Figure 20: SWOT-analysis of LLC “Kolibri”

According to the results obtained, such conclusions can be done:

1. To date, “Kolibri” strongest side is after-sale service, the position of which is still should be strengthened.

2. In order to realize the "Kolibri" existing opportunities in the shortest time, it is necessary to pay considerable attention to the search for the new target markets.

3. With the help of the marketing orientation of the company, it is possible to develop and keep up new target markets.

4. It is necessary to raise the technological level of the company to reduce the impact of weaknesses to the product.

5. To eliminate weaknesses or turn them into strengths it is necessary to develop a dealer network to increase the uniqueness of sales channels.

6. In order to hide weaknesses that cannot be changed (such as seasonality), one needs to prepare off-season products for season sales.

7. Unfortunately, the company cannot influence on most of the existing threats, so it is necessary to adapt or transfer the production capacity to another country with the most favorable political and economic climate.

3 Ways to improve the logistics system in the management of foreign economic activity of LLC “KOLIBRI”

3.1 Strategy improvement directions of foreign economic activity of LLC “Kolibri”

LLC “Kolibri” behavior on the foreign market is significantly determined by its internal capabilities and prospects of development at the level of strategic management achieved. At the same time, the foreign economic activity strategy is one of the important components of the strategic plan of LLC “Kolibri” and the strategic management systems.

The developing behavioral strategies process of LLC “Kolibri” on the international market includes six following stages:

– comprehensive analysis of the state and foreign economic activity development;

– expected changes analysis in the external market conditions;

– possibilities analysis on the foreign market gave developments in its environment;

– analysis of internal and external budgetary fiscal policy and an impact of changes in it on the organization's activities environment;

– analysis of trends in the development of the world economy, the state and trends of the world market, including credit market, foreign trade policy of different countries, assessment of the impact of changes in it on the organization's activities environment;

– development of a long-term strategy of foreign economic activity taking into account the existing and expected state of foreign markets, as well as opportunities and expected changes in the functioning of the enterprise.

Development strategy of LLC “Kolibri” behavior on the foreign market is carried out at the following three different levels: global, strategic and tactical.

The global level covers long-term aspects of activity based on the definition of the main goals that are considered as a whole. At the same time, planning is carried out at the management level of the enterprise, taking into account possible long-term and medium-term development options.

At the tactical level, a foreign economic activity planning focuses on the definition of specific goals, the achievement of which is a condition for the effective use of available resources for the implementation of global goals in the existing markets.[44]

The first phase of the development of the behavior strategy of LLC “Kolibri” on the foreign market objects of comprehensive analysis are the market state of inflatable boats supplied by the enterprise in the current structure of distribution; evaluation of the enterprise from the standpoint of the consumer, goods; evaluation of the organization's position on the market.

There are trends in the development of the market and their impact in the long term on the situation of the enterprise at the stage of changes analysis in market conditions (second stage). In this case, the impact of changes in the market conditions on the potential volumes and conditions of the sale of goods in accordance with the expected demand and supply is projected.

The third stage of the foreign economic strategy development in analyzing the organizing possibilities the object of analysis is the following: the expected dynamics of foreign trade, activity conditions in the new environment and expediency of its reduction of traditional spheres and segments of the market.

The analysis object of the fiscal and tax policy (fourth stage) is to deal with the influence of the relevant factors on the conditions of the organization's operation when changing fiscal policy both inside the country and abroad.

The development tendencies of the world economy and foreign economic relations, the expected impact on the organization functioning are estimated at the fifth stage of the development of the foreign economic strategy. Projected changes in the external trade policy of different countries, their general economic situation, the world market development trends, and etc. are taken into account.

The comprehensive analysis results of foreign economic relations, projected estimates and perspective conditions of development at all five stages of formation constitute the starting point for formulating the long-term strategy of the organization's behavior in the foreign market.

Formation of a global long-term goal (mission) of foreign economic activity; development of alternative options to achieve the foreign economic activity goal; the division (decomposition) of the foreign economic activity global goal into an interrelated goals

[44] Mazaraki A., Yukhimenko V., Serov L., Grebelnik O., Lipikhina T. (2013*). Regulation of Foreign Economic Activity in Ukraine.* P. 113

series; comparison of options for achieving the foreign economic activity goal, the choice of strategic alternatives, the assessment of their implementation opportunities and consequences and the formulation of enterprise behavior in the foreign market, involves developing the foreign economic activity strategy at the sixth stage.[45]

The main data for choosing the basic strategy are both macroeconomic factors and internal capabilities of the enterprise, which are determined by the cycle of its development. The main goal is to ensure consistency between goals and resources, which is solved at the same time.

The main thing in the selection is a strategy for LLC “Kolibri” foreign trade is the provision of an appropriate volume of goods turnover at the reducing costs to enterprises from the concluded agreements with foreign suppliers.

According to this main goal, the important tasks have to be solved during the turnover management, namely

1. Interrelation of the rate of development of turnover with the development of the regional consumer market and changes in its environment.

2. Planning the volume of sales of goods that provide the enterprises the necessary amount of profit.

3. Ensuring the effective use of resource potential in the course of turnover planning.

4. Ensuring the planning of the structure of turnover, which is most consistent with the consumer demand structure.

5. Planning the volume and structure of proceeds of goods and the stock amount, providing the rhythmic work of the enterprise and the and sustainability of the goods range.

Planning of the volume and structure of the acquisition and sale of goods is the most responsible stage in the system of economic management of goods turnover. It is necessary to determine not only the most important aspects of the delivery of products from abroad but also the impact of this activity on the obtained indicators of LLC “Kolibri”.

Goods import into another country has its own peculiarities. The enterprise must know the work of the customs perfectly. From the procedural point of view, when the goods arrive at their destination, the importer is required to fill in the documents, in which the

[45] Korkun, I. (2012). *Marketing and logistics in the management system.* P. 305

including information on estimated costs and the customs category of the goods are specified. There are more than 10 thousand customs categories of goods, and almost 60% of them can be interpreted ambiguously, that is, a concrete batch of goods can be attributed to more than one category. Then the customs check the goods regarding possible restrictions. Thereafter, customs can be paid and the goods will be transferred to the country. The duty amount depends on the country of the goods origin, its type, and other factors.[46]

Thereby, in the process of justification of directions increase of efficiency of foreign economic activity of the enterprise, in particular, export operations, management's focus must be on the search and implementation of stocks that are related to the scope of factors that depend on the activities of this enterprise. Searching for such stocks is carried out in the context of the efficiency separate component of foreign economic activity.

3.2 Improving the efficiency of logistics flows in the foreign economic activity of LLC “Kolibri”

The purpose of each enterprise is to provide the delivery of necessary goods in the right place at the right time and with minimal cost. Unfortunately, the logistics system is not able to provide the maximum service for customers and reduce to a minimum the goods distribution cost at the same time. The maximum service ensures storage of large inventories, a perfect transportation system and the availability of multiple warehouses, and this is all contributing to the growth of distribution costs. The following steps are required to reduce LLC “Kolibri” expenses: inexpensive transportation systems, small inventories storage and the presence of a small number of warehouses.

The costs of moving goods are often closely linked by indirectly proportional dependence:

1. Managers of a transportation-expedition service, which unites the supply and transport departments, most frequently preference for goods transport by hired vehicles. This reduces the enterprise's transport costs. However, the capital is shifting longer and payments are delayed. In addition, this encourages customers to buy goods from competitors that supply it in shorter terms.

[46] Morozov, V. (2013). *Fundamentals of Procurement of Goods, Works and Services in Projects*. P. 296

2. Cheap containers, which sometimes leads to numerous damage to the goods during transportation and dissatisfaction consumers use to minimize the costs of the transportation department.

3. The manager of the warehouse prefers the existence of small stock to reduce the cost of their storage. However, at the same time, there are more cases when there are no goods in stock at all, the number of unexecuted orders is increasing, volumes of paper work are growing, there is a need for the production of unplanned deliveries of goods and the use of expensive materials and means of its express delivery.

In any case, LLC “Kolibri” must identify the goals of the logistics system and take them into account in the planning process. The enterprise must develop standards for each element of the service system, namely:

– execute about 95% of applications for goods delivery within 7 days;

– to execute the order of up to 99%;

– to answer the consumer's inquiries about the progress of their orders within 3 hours;

– try to reduce the number of goods damaged during transportation to 1%.

Defining logistic goals, the enterprise should begin to formulate a system of goods movement, which will ensure the achievement of these goals with minimal cost. At the same time, it is necessary to decide on how to work with the customer (processing orders), where it is necessary to save inventory (warehousing), required stock (inventory) size; how to ship goods (transportation). The enterprise should consider the cost of these solutions, taking into account marketing in detail.[47]

In the system with the volume of the fixed ordering process, should be not only rational but also optimal. In this case, as a criterion for optimization advocated the minimum of aggregate costs for storing stocks and repeating the order serves. This criterion takes into account three factors that affect the size of aggregate costs, namely:

– a warehouse space;

– costs of storing stockpiles;

– costs of order registration.

[47] Mezentsev K., Mezentseva N. (2012). *Fundamentals of Foreign Economic Activity*. P. 72

These factors are closely related, but the direction of their interaction is the same in different cases. The desire to save as many stocks as possible increases the cost of ordering. The cost saving of repeat orders leads to losses associated with the content of unnecessary warehouse and worsens the level of customer service. At the maximum loading of the warehouse for the stocks storage of significantly increases the illiquid stock's risk.

An important advantage of logistics management is an increase in the level of transport services, which is achieved not first and foremost thanks to the work of the transport units, but due to the coordinated implementation of a complex of works on the supply, sale, and transportation of products. In contrast to the old methods of separate management of goods transport and warehousing, there is a transition of the enterprise in a coordinated management of goods. The basic organizational and economic benefits of such a management provide an integrated accounting of all delivery of goods costs and freight forwarding costs, not only tariffs on transport. According to expert estimates, the use of logistic methods can reduce stocks by 30 - 50% and shift products by 25 - 45%.[48]

LLC “Kolibri” chose to transport goods for shipment of goods to consumer warehouses. This is mainly due to the peculiarities of transportation of goods. New types of services related to the collection and distribution of goods, is one of the main factors of work effectively of vehicles. Their very essence is in the refusal of existing numerous links in the system of manning goods, as well as in the establishment of centralized storage points on the main movement routes. As a result of a reduction of volumes stock and the length of the order processing cycle due to the computerization of the service became cheaper, and their quality has increased. Increasing the participation of road transport in the development of logistical chain for good will not only contribute to the development of goods automation and vehicles but will also result in growing problem of unused track and carrying capacity.

In deciding which a delivery system for particular goods, the enterprise considers and analyzes the factors. Thus, if the sender is interested in the speed of goods delivery, then vehicles shall be chosen. Road transport has many advantages in comparison with other vehicles.

Picking out the supplier, it must be noted that first of all, it is necessary to make a specification to the supplier, that is, determine the amount of the procurement cost, the quality of the supplied goods, the order of delivery, the production of the supplier, the place of its identifying. Secondly, based on the requirements of the supplier, those who

[48] Kachala T., Karpova O. (2013). *Logistics*. P. 93

do not correspond to one or more criteria should be given up off. Also, it should be monitored that the number of suppliers remained limited.[49]

It is necessary that the supplier assessment level responsible the importance of the solution. At the same time, data about their activities by the business press, and also through interviews with subordinates and customers provided by suppliers are used. It is important to choose the most significant indicator for evaluation. This may be the price, quality, shipping costs, etc.

Analytical work is changing during negotiations with suppliers. In the relationship with them, there are informal exchanges of thoughts and information. This adds certainty to overcoming the difficulties. Therefore, the negotiations are considered as a key process in the organization of procurement, although the conclusion of an agreement with the enterprise is not required.[50]

Written proposals for the goods delivery there might be other options for obtaining offers from potential suppliers. In addition, the consumer can take the initiative. If the supplier is an initiator, a proposal to potential customers about the supply of goods sends by him. Supplier proposal may have different form and content. They include the description of the goods, data on its quantity and quality, the price and delivery time, the type of packaging, the order of reception and delivery. The proposals can be strict and free.

Strict offers in which the term of validity, within which the seller cannot change the terms are coming only for one customer. The absence of a reply within this period means buyer's abandoning of supply and preclude the seller's from the proposed offers. If the customer accepts the offer, then the confirmation of its acceptance is sent to the seller. The seller may also receive conditionalities from the customer. If the contractors do not reach agreement within the term of the offer, the negotiations will continue without the seller's obligations, which were accepted by him under strict proposals.[51]

The free offer does not imply any seller's obligations to the customer, it can be sent to an unlimited number of potential customers. The customer serves as an initiator of the negotiations in the free offer. He is handing out to the potential suppliers a commercial letter or request, the main purpose of which it is to receive the offer. The request contains

[49] Dyonovsky, Y. (2014). *Marketing commodity policy*. P.41

[50] Protsenko, I. (2013). *Basic and Innovative Logistics.* In magazine: “RISK: Resources, Information, Supply, Competition” № 3. Pp.18

[51] Naumenko, A. (2012). *Logistically oriented management of an industrial enterprise in modern conditions.* In magazine: “Formation of market relations in Ukraine” № 1. Pp. 37-38

all the necessary details (description of goods, proper quality, conditions and delivery time, payment, etc.), except for the price that appears in a response to the offer.

If the customer applies to the permanent counterparties, it is possible to send an order instead of the request.

Evaluation of proposals carried out in various ways. This can be a strictly regulated process or a freer procedure. The main criterion for choosing may be higher quality and a minimum price.

The cost of acquiring, with the exception of prices for products or services, also includes other costs that are not measured in money terms, that is, as changing the organization's image, prospects for growth and development of the enterprise, etc.

The quality of service involves the quality of products or services and the reliability of the service. This is a guarantee of customer service to the necessary resources for a limited period of time and regardless of the obstacles that might arise, as well as violations of delivery times. Satisfying consumer applications is a measure of reliability.

Other criteria that influence the choice of the supplier there are distances to the consumer, the deadline for implementing orders, the availability of the reserve capacity supplier, payment capacity, financial condition, etc.

In order to make a decision on the choice of the supplier, according to the listed criteria, LLC “Kolibri” would be necessary to collect relevant information. Picking out sources of information that can be your own research, legal advice, banks, financial institutions, trade associations, news agencies, should be guided by following rules:

1. We cannot limit ourselves to one source of information.

2. At least, one of the sources used should be independent, namely, uninterested in the possible consequences of using the information provided.

In order to realize the opportunities, an intermediary in the compete for the pocketbooks of customers needs to conduct relevant market research, and then create an organizational structure that is consistent with the logistics concept.

Macrosegmentation and projections, as well as the development of a logistics process model, are necessary to achieve the targets. It is necessary to unite consumers into groups according to their character and volume of logistics services with the mandatory consideration of territorial and industry factors in the realization of macrosegmentation. Compliance with the requirements of the concept of logistics and the resources

concentration of intermediaries in the most important areas of logistics service is optimizing not only the service area but also the trade area.

Consumers’ associations into trade and service areas, solvency is also taken into account, consumers’ requirements for the structure of the complex and other factors are determined.

The next step is microsegmentation, when the tactics of action on the market are solved, the production mechanism and logistics services implementation will be coordinated and corrected.

There are using different forms of creation of service logistics organizations abroad. The form of procurement or distribution that allows suppliers and consumers to interact in transport using warehouses or other logistics intermediaries is widespread in some countries. Transport enterprises, general use warehouses, and other process participants provide the customer with a previously agreed package of logistics services (transportation, forwarding, information and other services) responsiveness to the proposed contractual terms. At the same time, the supplier is obliged to give part of the fleet of rolling stock, warehouses, as well as relevant personnel (when necessary) at prior appointment time and at a previously agreed price to the customer at the full disposal. The term of such agreement varies from 2 to 5 years. In accordance with this contract and the logistics subsystem created on its basis, the responsibility for the efficient operation of vehicles obtained for using, warehouse and other logistical capacities, as well as the workforce, the customer is responsible.[52]

Logistics service subsystems are also being created in Ukraine. These are various intermediary firms operating in the area of freight forwarders services. The subsystems development of freight forwarding services is based on the calculation and coordination of the interests of a sender, a consignee and a transporter through the creation of complex expeditionary systems, technological routes of traffic flow, in which the rolling stock of clients is used based on the rules of cooperation.[53]

The change in the ownership relations of trade enterprises from the point of view of trade logistics has both positive and negative consequences. On the one hand, the economic independence of LLC “Kolibri” gives the opportunity to choose the distribution channels, expanding the horizons of a search for optimal options for the creation of logistics chains. On the other hand, economic independence is an impediment to the process of

[52] Semenov V., Volodina E. (2009). Efficiency of Logistic Systems. In magazine: “Marketing” № 2. Pp. 107-115

[53] Fedulova, L. (2011). *Analysis of the process of management of material and information flows of industrial enterprises*. In magazine: “Formation of market relations in Ukraine” № 2. Pp.57-60

harmonizing the interests of all participants in the logistics system, which in fact undermines the organizational and economic foundations of trade logistics. It is established that potential possibilities of a logistics approach to trade organization are successfully implemented in conditions of economic and political stability of society. The more significant difference between trade and logistics occurs when logistical operations are investigated.

The main principle differences of the logistics organization of trade LLC “Kolibri” from the traditional is the potential opportunity to get the effect of integrating the efforts of all participants in the process of physical movement of goods in the field of commercial mediation. Improving any operation in the enterprise logistics system, including foreign economic operations, rarely gives effect for the entire system. It is often necessary to apply an integrated approach to the all system elements.

In this system, the enterprise is able to perform various trading functions, taking into account such as the sale of finished goods by producers. The wholesale enterprise serves as a major intermediary by establishing links directly with commodity producers of goods, or indirectly through commercial agents and the retail. Small-scale wholesale trading intermediaries may operate between the wholesale and retail chain of the logistics chain, which performs the functions of bringing the product range to consumer goods.[54]

Vertical integration, as a rule, is possible on a voluntary basis by the unification of isolated logistics elements into an integrated system. At the same time, the coordination forms of logistical efforts of all participants in this system will be carried out at the expense of the integration depth and other factors.

Thus, LLC “Kolibri”, by acceding to the logistics chain, is active in trading both in the Ukrainian market and in establishing partnerships with foreign enterprises. The main thing, in this case, is to increase the efficiency of logistics flows, which can be accomplished by the best practices of national and foreign enterprises operating in the field of logistics. In this case, it is expedient to adapt the organizational structure to the logistics process in the direction of creating a separate department from the state of the employees of the enterprise, which will be assigned exclusively functions in the field of management of logistics flows. This would not only enhance the relationship with the suppliers and the customers but improve the effectiveness activities of the enterprise in general.

[54] Kuzmin O., Zagorodniy A., Gladunsky V., Pidgorodetskii Y., Feshchur V. (2013). *Foreign Economic Activity*. P. 81

4 Summary

In the thesis on the basis of the analysis of theoretical aspects of the concepts of "logistics system", "management of foreign economic activity of the enterprise", estimation of foreign economic operations and logistic flows in the company "Kolibri", assessing the use of information flows in commercial logistics LLC "Colibri", SWOT analysis of activities The company and its technical and economic analysis have developed recommendations for improving the strategy of foreign economic activity of the company "Kolibri", improving efficiency his spine logistics flow and logistics system in the management of the foreign economic activity.

The main results of the research in the thesis are the fulfillment of those tasks and the achievement of those goals that were set before writing the work.

The general conclusions, results and key points of the work performed are given below.

Today, there are many definitions of logistics, but they all agree that logistics is a scientific discipline, about managing flows in systems. This general definition can be specified for the systems and flows in which it circulates. It is known that the system is a set of interconnected elements that function to achieve a common goal. In dynamic systems, the interconnection of elements and functioning is achieved through appropriate flows. For this reason, flows are an integral part of the system. Thus, they can be considered as subsystems and independent control objects.

For 20 years the existence of the SBK "Kolibri" has undergone many changes. Most of them had a positive impact on its development. Today Kolibri LLC is three shipyards with a total productivity of more than 70,000 vessels a year; The largest manufacturer of small vessels in Ukraine and one of the largest manufacturers in Europe. Its dealer-distributor network consists of more than 300 enterprises in more than 20 countries of the world.

A great deal of attention is paid to the development of international transportation at "Kolibri" LLC Although the company does not have a separate logistics department, the respective functions of control, analysis and planning of logistic flows are decentralized, that is, they are scattered in departments.

The importance of the information logistics system in the international transportation of LLC "Kolibri" lies in the fact that it unites into a single whole functional branch of commercial logistics, providing the internal interconnection and integrity of this system.

According to financial and technical and economic analysis, LLC "Kolibri" had a peak of business activity in 2012. From the beginning of 2013 to the present day there is a

decline. There are two important reasons for this: the political, economic situation in the country and the reorientation of the company to the European market.

SWOT analysis by Colibri LLC showed that:

- for today the strengths are greater than the weak ones;

- To eliminate weaknesses or transform them into strong ones, it is necessary to develop a dealer network to increase the uniqueness of sales channels;

- to minimize the impact of weaknesses on the product, it is necessary to increase the technological level of the company;

- to realize the existing opportunities of "Kolibri" in the shortest possible time, it is necessary to pay considerable attention to the search for new markets;

- unfortunately, most of existing threats cannot be influenced by the company, therefore, it is necessary to adapt or transfer the production capacities to another country with the most favorable political and economic climate.

The main thing when choosing a strategy of foreign trade activity of LLC "Kolibri" is to provide an appropriate volume of goods turnover while reducing the company's costs from agreements with foreign suppliers.

An important advantage of logistics management is an increase in the level of transport services, which is achieved not only and not so much thanks to the work of transport units, but due to the coordinated implementation of a complex of works on the supply, sale and transportation of products.

Abroad use different forms of creating service logistics organizations. The form of procurement or distribution that allows suppliers and consumers to interact in transport using warehouses or other logistic intermediaries is widespread in some countries.

The main principle differences of the logistics organization of trade "Colibri" from the traditional is the potential opportunity to get the effect of integrating the efforts of all participants in the process of physical movement of goods in the field of commercial mediation.

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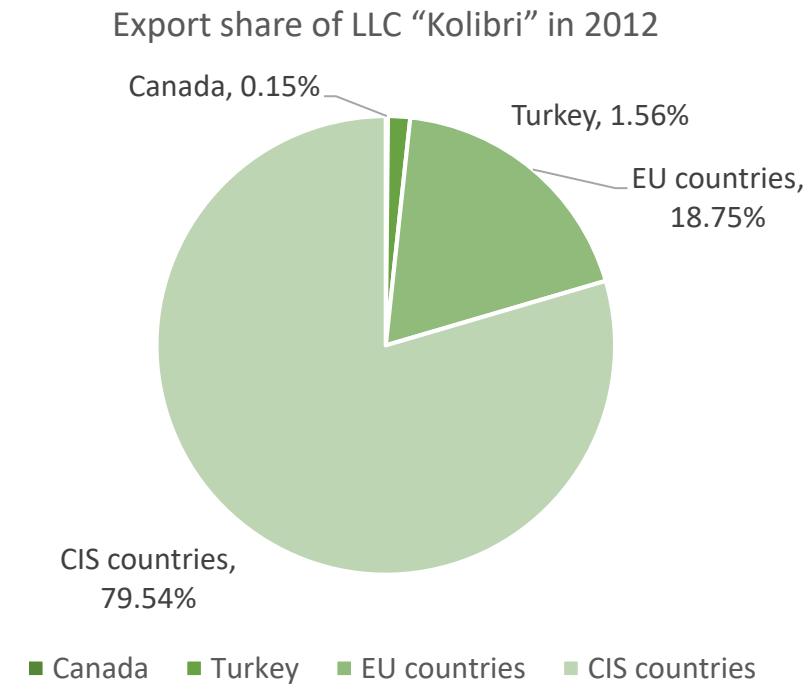
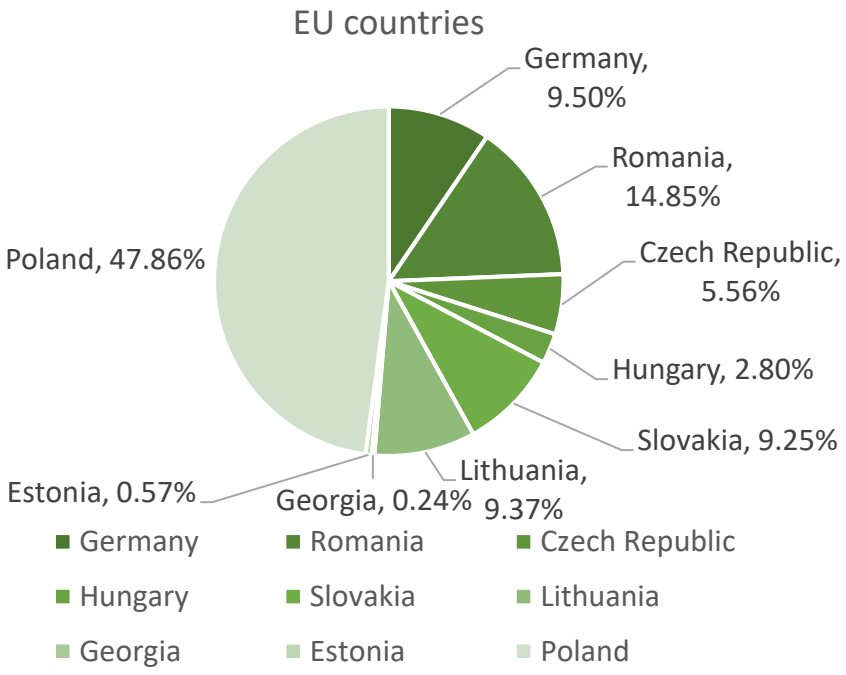
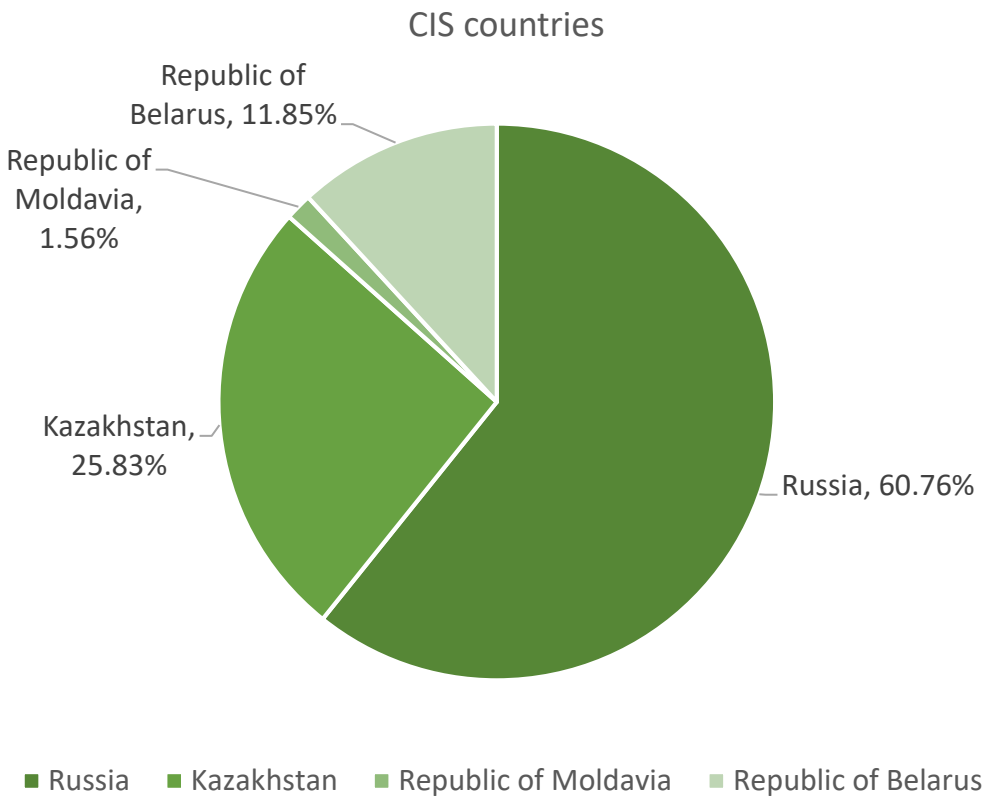
Applications

Appendix A

Export share of LLC “Kolibri” in 2012 – 2015.



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Kazakhstan, 25.83%
Russia, 60.76%
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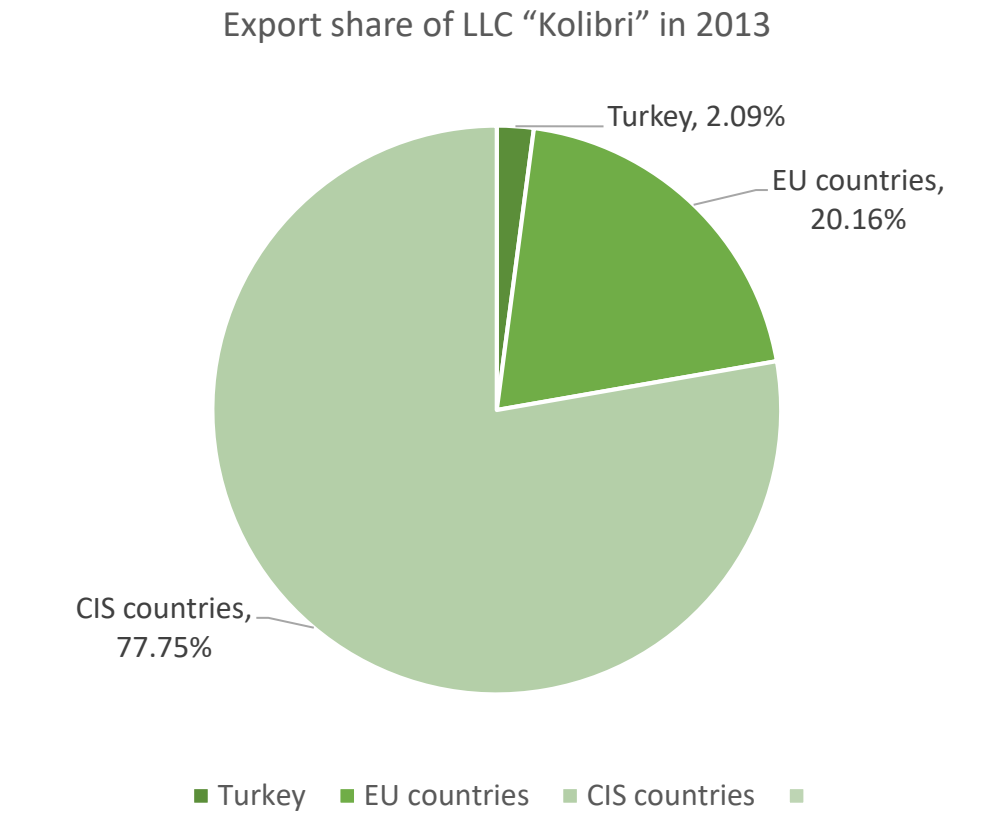
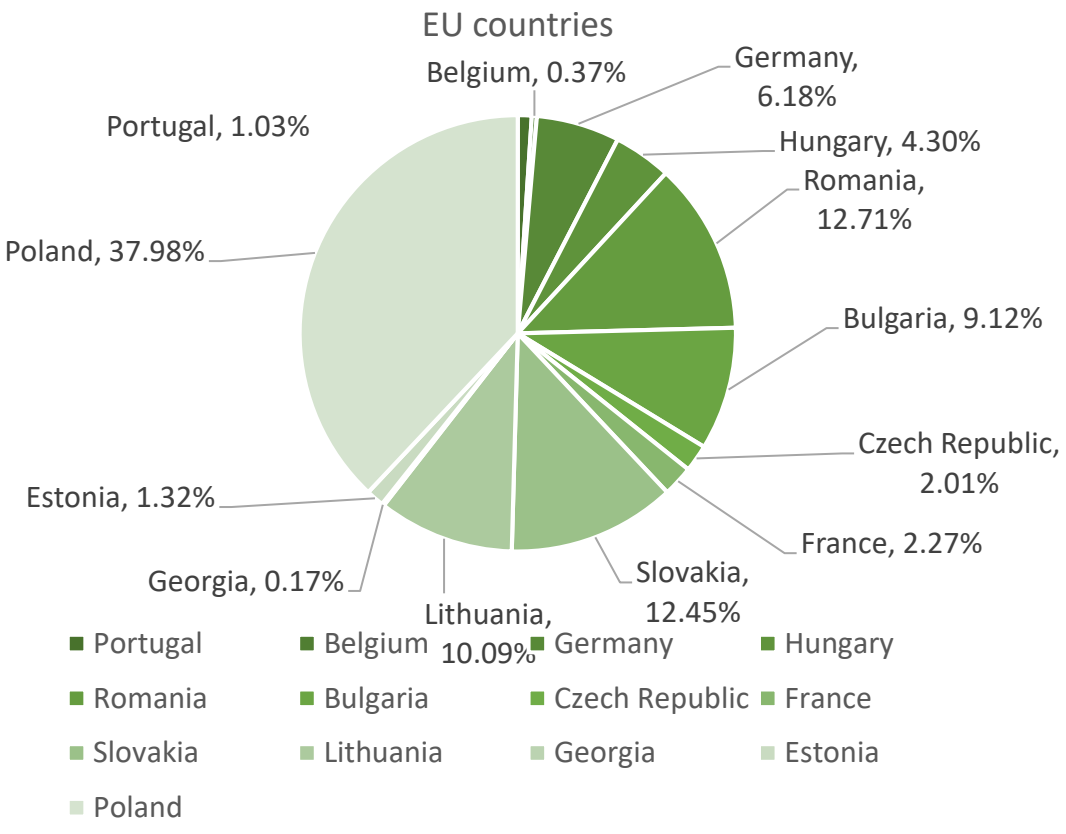
Kazakhstan
Republic of Moldavia
Republic of Belarus


Export share of LLC “Kolibri” in 2013
Turkey, 2.09%
EU countries, 20.16%
CIS countries, 77.75%
Turkey
EU countries
CIS countries


EU countries
Belgium, 0.37%
Germany, 6.18%
Hungary, 4.30%
Romania, 12.71%
Bulgaria, 9.12%
Czech Republic, 2.01%
France, 2.27%
Slovakia, 12.45%
Lithuania, 10.09%
Georgia, 0.17%
Estonia, 1.32%
Poland, 37.98%
Portugal, 1.03%
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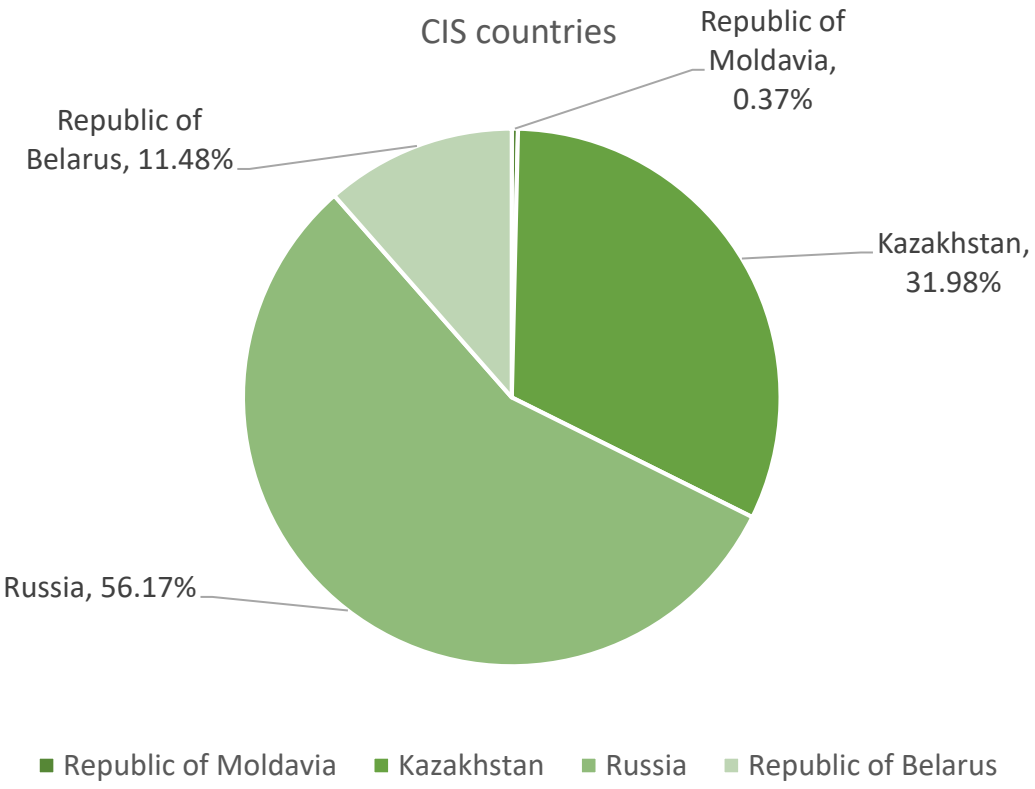
Germany
Hungary
Romania
Bulgaria
Czech Republic
France
Slovakia
Lithuania
Georgia
Estonia
Poland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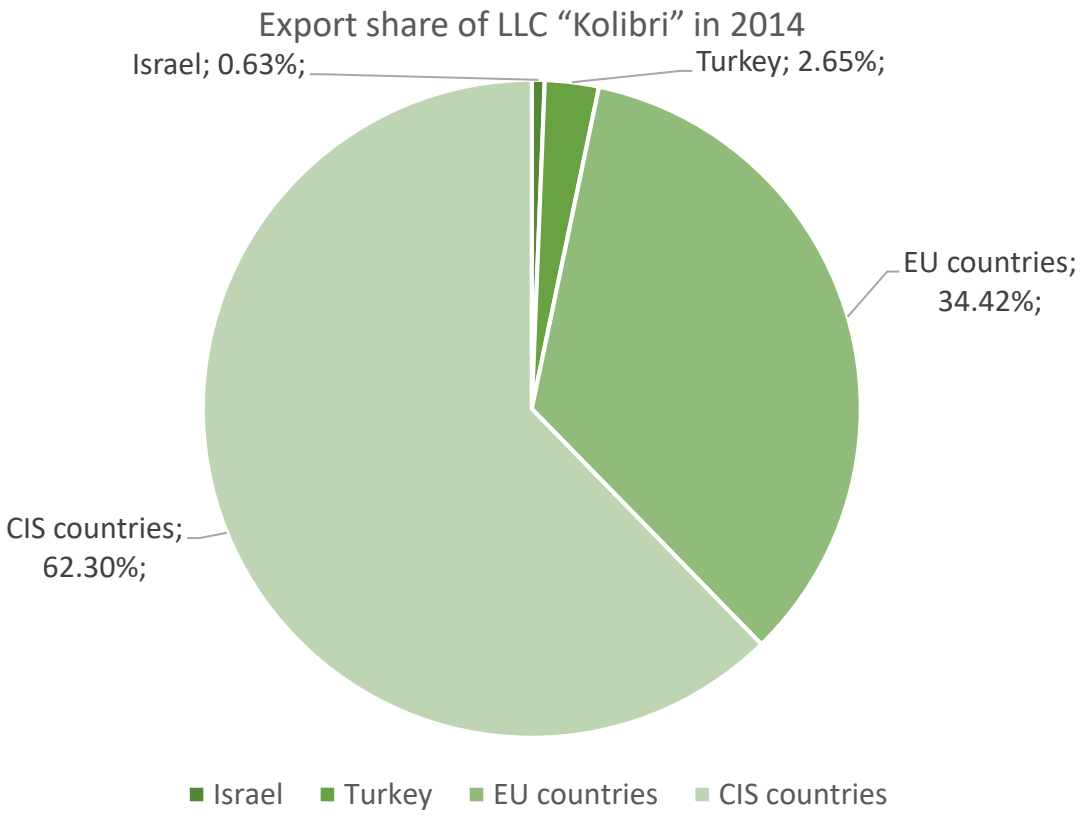
Russia
Republic of Belarus


Export share of LLC “Kolibri” in 2014
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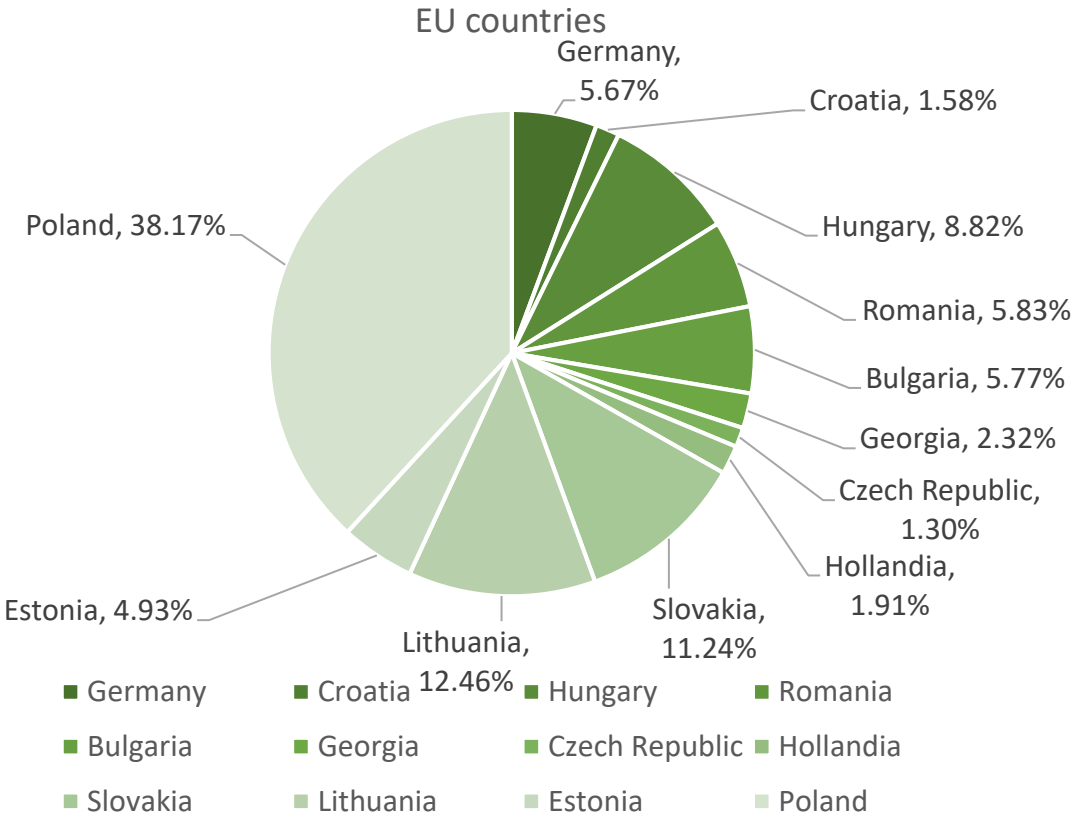
Turkey; 2.65%;
EU countries; 34.42%;
CIS countries; 62.30%;
Israel
Turkey
EU countries
CIS countries


EU countries
Germany, 5.67%
Croatia, 1.58%
Hungary, 8.82%
Romania, 5.83%
Bulgaria, 5.77%
Georgia, 2.32%
Czech Republic, 1.30%
Hollandia, 1.91%
Slovakia, 11.24%
Lithuania, 12.46%
Estonia, 4.93%
Poland, 38.17%
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Bulgaria
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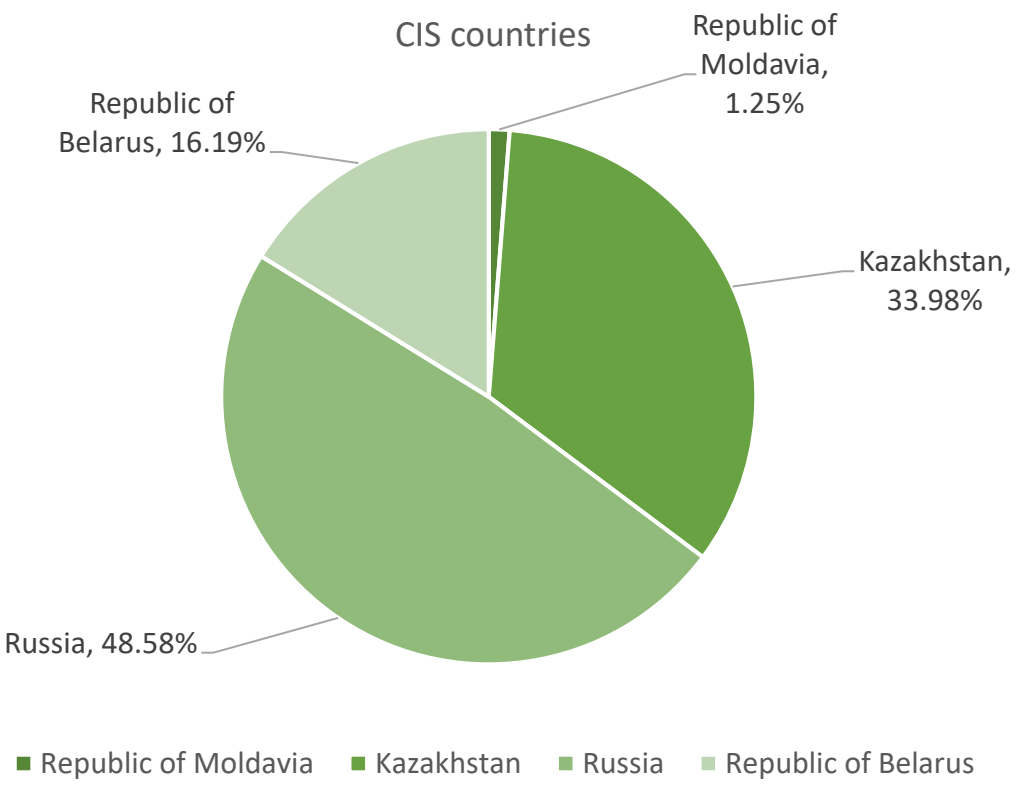
Hollandia
Slovakia
Lithuania
Estonia
Poland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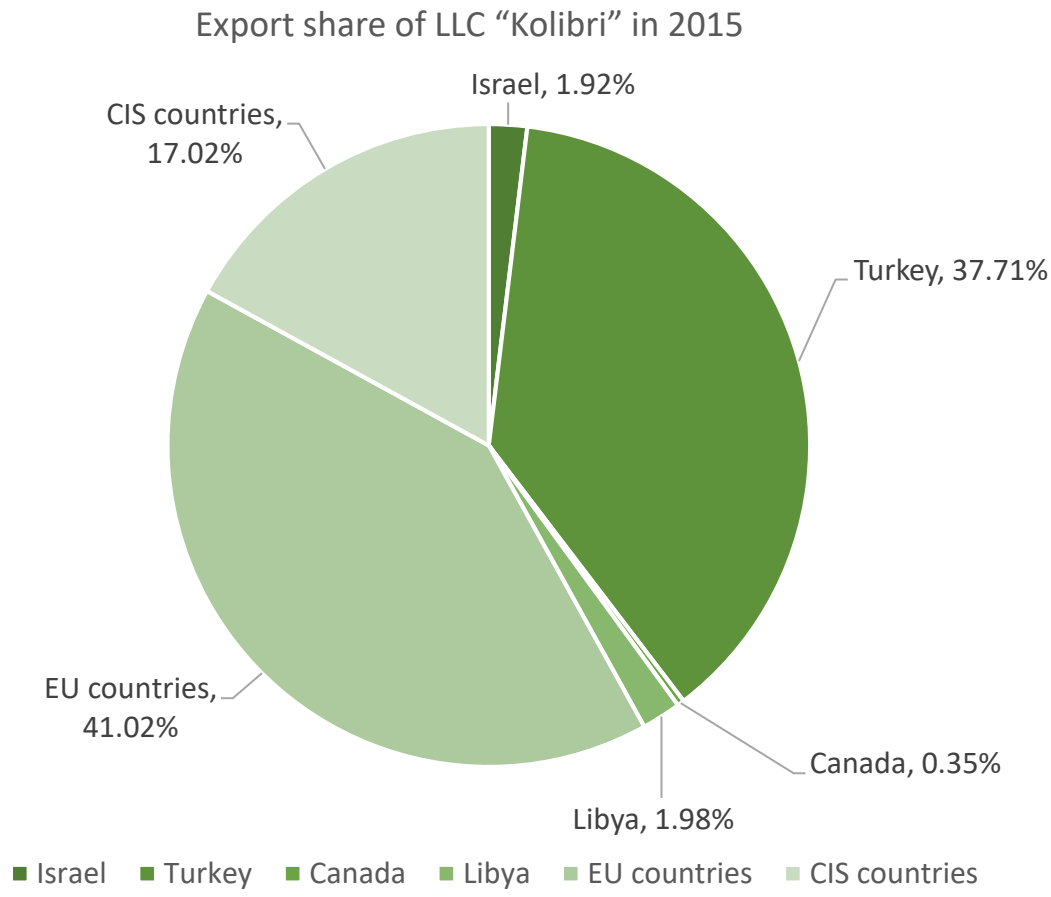
Kazakhstan
Russia
Republic of Belarus


Export share of LLC “Kolibri” in 2015
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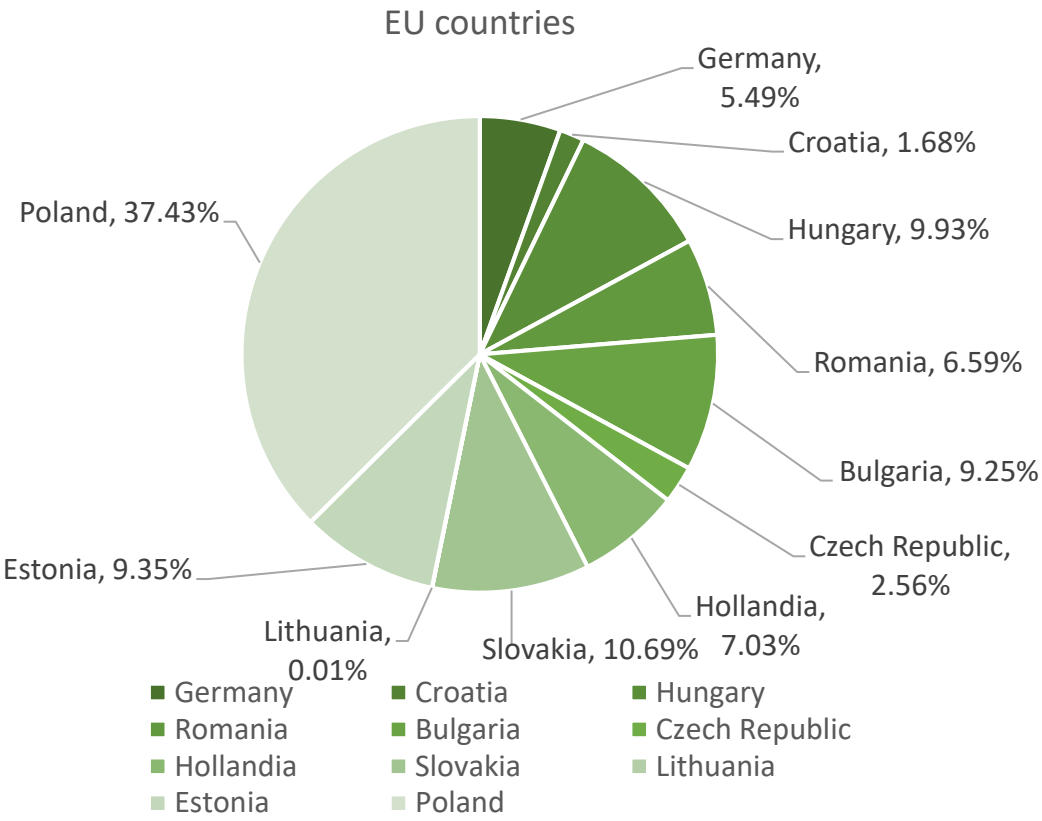
CIS countries, 17.02%
Turkey, 37.71%
EU countries, 41.02%
Canada, 0.35%
Libya, 1.98%
Israel
Turkey
Canada
Libya
EU countries
CIS countries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Hungary, 9.93%
Romania, 6.59%
Bulgaria, 9.25%
Czech Republic, 2.56%
Hollandia, 7.03%
Slovakia, 10.69%
Lithuania, 0.01%
Estonia, 9.35%
Poland, 37.43%
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Hungary
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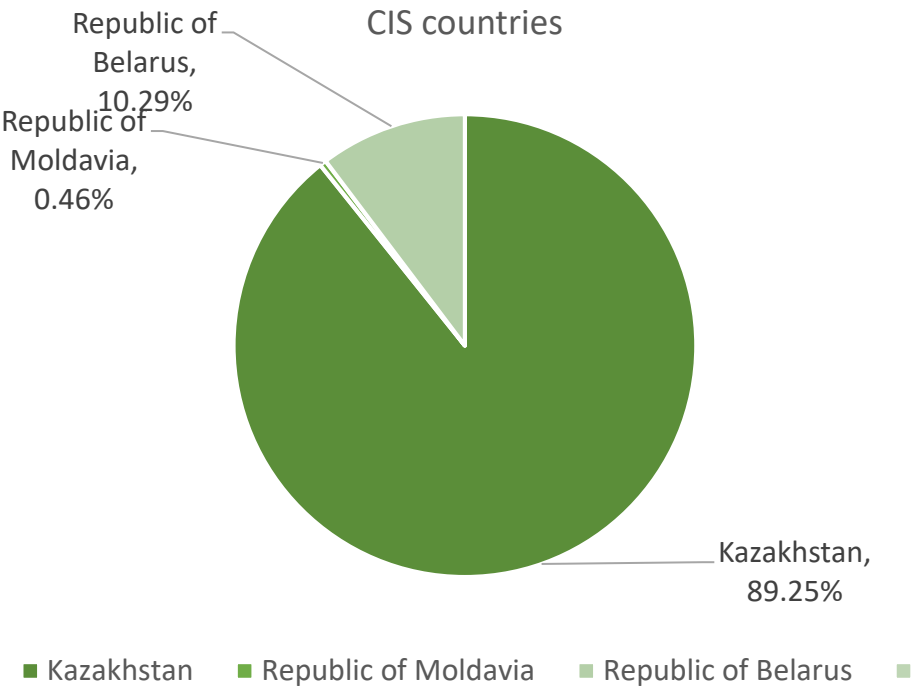
Bulgaria
Czech Republic
Hollandia
Slovakia
Lithuania
Estonia
Poland


CIS countries
Republic of Belarus, 10.29%
Republic of Moldavia, 0.46%
Kazakhstan, 89.25%
Kazakhstan
Republic of Moldavia
Republic of Belarus

Appendix B

Estimating the use of information flows in commercial logistics of LLC “Kolibri”

TYPES OF INFORMATION FLOWS	NOTE		
	step of use of information	usefulness of information	necessity of determining the full information
1	2	3	4
1. Streams of primary information			
1.1. Customer survey	4	5	5
1.2. Survey of sales staff	5	5	5
1.3. Surveillance of consumer behavior	2	4	4
1.4. Information obtained from personal contacts with competitors, suppliers	5	5	5
GPA	4,0	4,8	4,8
2. Streams of secondary internal information			
2.1. Statistical and accounting reporting	5	5	5
2.2. Supply information (Supply Agreements, Vendor Logbook)	5	5	5
2.3. Information for the detailed study of suppliers (supplier rating)	3	5	4
2.4. Materials for studying the demand of buyers (accounting and analysis of dissatisfied demand, data on the study of intra-group demand structure, operational accounting of sales of goods, etc.)	4	4	3
2.5. Information on the results of segmentation of the market and consumer typology	3	4	4
2.6. Materials for studying the activities of competitors in the field of commodity, pricing, marketing and communication policy	2	4	5
2.7. Commodity-related documents	3	2	1
2.8. Operational information	5	5	5
GPA	3,8	4,3	4,0
3. Streams of secondary external information			
3.1. Periodicals	5	5	5
3.2. Advertising messages on radio and television	5	4	4
3.3. Catalogs, brochures, prices, press releases	5	5	5

3.4. Information on quotations of currencies	5	5	3
3.5. Information and analytical newsletters	4	4	3
3.6. Legislation and normative documentation	5	5	5
3.7. Information about market conditions and its trends, market capacity, supply and demand correlation	5	5	5
3.8. Information about suppliers	5	5	5
3.9. Information about competitors	5	5	5
3.10. Consumer information	5	5	5
3.11. Results of marketing research by commercial organizations	3	4	4
3.12. Studying the trends of business activity of commercial partners	3	4	4
GPA	4,6	4,7	4,4

Appendix C

Index	Unit	Deviation								
		2011	2012	2013	2014	2015	relative deviation in %			
							2015 to 2011	2015 to 2012	2015 to 2013	2015 to 2014
1. Average cost of the aggregate capital	Thsd. UAH	7976,15	5972,2	8464,4	15196,65	21747	173	264	156,9	43,1
2. Average cost of the equity	Thsd. UAH	1445,45	2685,3	7746,8	4225,65	3668,25	153,8	36,6	-52,6	-13

Index	Unit	Deviation								
		2011	2012	2013	2014	2015	relative deviation in %			
							2015 to 2011	2015 to 2012	2015 to 2013	2015 to 2014
1. Average residual value of capital assets	Thsd. UAH	204,05	148,05	48,8	14,6	16,75	-108	111	-134	14,8
2. Average value of current assets	Thsd. UAH	7769,65	5821,3	8412,9	15182,05	21732,05	180	273	158	31
3. Average number of employees	People	34	32	37	36	42	24	31,25	13,5	17

Index	Unit	Deviation								
		2011	2012	2013	2014	2015	relative deviation in %			
							2015 to 2011	2015 to 2011	2015 to 2011	2015 to 2011
1. Net income (revenue) from sales of products	Thsd. UAH	22786,1	25933,4	26046,5	25971,3	38583,2	69	48,8	48	48,6
2. Cost of sales	Thsd. UAH	15193,2	20840,3	20287,1	21907,1	32694,7	115	57	61	49

Index	Unit	Deviation								
		2011	2012	2013	2014	2015	relative deviation in %			
							2015 to 2011	2015 to 2011	2015 to 2011	2015 to 2011
1. Gross profit (loss)	Thsd. UAH	7592,9	5093,1	5759,4	4064,2	5888,5	-22,4	15,6	2,24	44,9
2. Net profit (loss)	Thsd. UAH	622,1	1857,6	518,6	185,9	600,3	-196,5	-132	18	223

Index	Unit	Deviation								
		2011	2012	2013	2014	2015	relative deviation in %			
							2015 to 2011	2015 to 2011	2015 to 2011	2015 to 2011
1. Turnover ratio of current assets	Turn.	2,93	4,45	3,1	1,71	1,78	-39	-60	-42,6	0,07
2. Average duration of turnover of current assets	Days	122,9	81	116	210,5	202	64	149	74	-4
3. Labor productivity	Thsd. UAH/ People	670	810	704	721	918	37	13	30	27
4. Capital productivity	UAH/ UAH	111,67	175,1	533,7	1778,9	2303,5	1962,7	1215,5	331,6	29,5
5. Capital intensity	UAH/ UAH	0,009	0,006	0,002	0,0006	0,0004	-96	-93	-80	-33
6. Capital-labour ratio	Thsd. UAH/ People	6	4,6	1,3	0,41	0,4	-93	-91	-69	-2,4

Index	Unit	Deviation								
		2011	2012	2013	2014	2015	relative deviation in %			
							2015 to 2011	2015 to 2011	2015 to 2011	2015 to 2011
1. Operational profitability	%	0,08	0,31	0,06	0,01	0,03	-62,5	-90	-50	200
2. Product profitability	%	0,04	0,089	0,26	0,008	0,018	-55	-79,7	93	125
3. Sales profitability	%	0,027	0,072	0,02	0,007	0,016	-40	-78	-20	128,6

Appendix D

Balance (2011) – Form Nr.1-m, Thsd. UAH

Asset			
	Row number	At the beginning of the accounting year	At the end of the accounting year
I. Capital assets			
Capital assets	1010	185,2	222,9
Initial cost	1011	416,8	529,4
Wear and tear	1012	(2316)	(306,5)
Long-term financial investments	1030	-	-
Other capital assets	1090	-	-
Total	**1095**	**185,2**	**222,9**
II. Current assets			
Productive reserves	1100	1450,6	2067,6
including finished products	1103	3,8	3,8
Receivables for goods and services	1125	2236,8	1995,2
Receivables on the budget	1135	2225,7	4644,6
including income tax	1136	-	-
Other current accounts receivable	1155	32,3	366,4
Current financial investments	1160	-	-
Cash and cash equivalents	1165	114,5	225,3
Future expenses	1170	1,8	3,1
Other current assets	1190	-	172,7
Total	**1195**	**6065,5**	**9478,7**
III. Capital assets held for sale and depreciation	**1200**	-	-
Balance	**1300**	**6250,7**	**9701,6**

Liability			
	Row number	At the beginning of the accounting year	At the end of the accounting year
I. Equity			
Share capital	1400	0,4	0,4
Supplementary capital	1410	-	-
Reserve capital	1415	-	-
Undestributed profits (uncovered loss)	1420	1134,0	1756,1
Unpaid capital	1425	(-)	(-)
Total	**1495**	**1134,4**	**1756,5**
II. Long-term obligations and benefits	1595	-	-
III. Current obligations and benefits			
Pre-financing loans from banks	1600	-	-
Current accounts payable for:			
long-term liabilities	1610	-	-
goods, works, services	1615	5032,5	7862,3
on the budget	1620	50,7	3,6
including income tax liabilities	1621	-	-
on insurance	1625	7,5	10,9
salary	1630	17,2	21,5
Revenue of the future periods	1665	-	-
Other current liabilities	1690	8,4	46,8
Total	**1695**	**5116,3**	**7945,1**
IV. Liabilities associated with capital assets, which held for sale and depreciation	**1700**	-	-
Balance	**1900**	**6250,7**	**9701,6**

Financial results (2011) – Form Nr.2-m, Thsd. UAH

Financial results			
	Row number	During the reporting period	For the same period of the previous year
Net income from sales of products	2000	22786,1	15835,2
Other operating income	2120	10362,2	2909,5
Other income	2240	0,8	3,8
Total income (2000+2120+2240)	2280	33149,1	18748,5
Cost of sales	2050	(15193,2)	(-)
Other operating costs	2180	(9638,2)	(11014,3)
Other costs	2270	(7491,9)	(6544,3)
Total costs (2050+2180+2270)	**2285**	**(32323,3)**	**(17558,6)**
Financial result before taxation (2280-2285)	2290	825,8	1189,9
Profit tax	2300	(203,7)	(228,1)
Net profit (loss) (2290-2300)	**2350**	**622,1**	**961,8**

Balance (2012) – Form Nr.1-m, Thsd. UAH

Asset			
	Row number	At the beginning of the accounting year	At the end of the accounting year
I. Capital assets			
Capital assets	1010	222,9	73,2
Initial cost	1011	529,4	151,5
Wear and tear	1012	(306,5)	(78,3)
Long-term financial investments	1030	-	-
Other capital assets	1090	-	-
Total	**1095**	**222,9**	**73,2**
II. Current assets			
Productive reserves	1100	2067,6	534,6
including finished products	1103	3,8	-
Receivables for goods and services	1125	1995,2	4346,2
Receivables on the budget	1135	644,6	0,3
including income tax	1136	-	-
Other current accounts receivable	1155	366,4	1108,5
Current financial investments	1160	-	-
Cash and cash equivalents	1165	225,3	177,4
Future expenses	1170	3,1	2,6
Other current assets	1190	172,7	-
Total	**1195**	**5478,7**	**6169,6**
III. Capital assets held for sale and depreciation	**1200**	-	-
Balance	**1300**	**5701,6**	**5242,8**

Liability			
	Row number	At the beginning of the accounting year	At the end of the accounting year
I. Equity			
Share capital	1400	0,4	0,4
Supplementary capital	1410	-	-
Reserve capital	1415	-	-
Undestributed profits (uncovered loss)	1420	1756,1	3613,7
Unpaid capital	1425	(-)	(-)
Total	**1495**	**1756,5**	**3614,1**
II. Long-term obligations and benefits	1595	-	-
III. Current obligations and benefits			
Pre-financing loans from banks	1600	-	-
Current accounts payable for:			
long-term liabilities	1610	-	-
goods, works, services	1615	3862,3	2521,5
on the budget	1620	3,6	56,8
including income tax liabilities	1621	-	-
on insurance	1625	10,9	10,6
salary	1630	21,5	21,9
Revenue of the future periods	1665	-	-
Other current liabilities	1690	46,8	17,9
Total	**1695**	**3945,1**	**2628,7**
IV. Liabilities associated with capital assets, which held for sale and depreciation	**1700**	-	-
Balance	**1900**	**5701,6**	**6242,8**

Financial results (2012) – Form Nr.2-m, Thsd. UAH

Financial results			
	Row number	During the reporting period	For the same period of the previous year
Net income from sales of products	2000	25933,4	22786,1
Other operating income	2120	2036,1	10362,2
Other income	2240	85,9	0,8
Total income (2000+2120+2240)	2280	28055,4	33149,1
Cost of sales	2050	(20840,3)	(15193,2)
Other operating costs	2180	(3283,4)	(9638,2)
Other costs	2270	(1670,5)	(7491,9)
Total costs (2050+2180+2270)	**2285**	**(25794,2)**	**(32323,3)**
Financial result before taxation (2280-2285)	2290	2261,2	825,8
Profit tax	2300	(403,6)	(203,7)
Net profit (loss) (2290-2300)	**2350**	**1857,6**	**622,1**

Balance (2013) – Form Nr.1-m, Thsd. UAH

Asset			
	Row number	At the beginning of the accounting year	At the end of the accounting year
I. Capital assets			
Capital assets	1010	73,2	24,4
Initial cost	1011	151,5	54,6
Wear and tear	1012	(78,3)	(30,2)
Long-term financial investments	1030	-	-
Other capital assets	1090	-	-
Total	**1095**	**73,2**	**24,4**
II. Current assets			
Productive reserves	1100	534,6	1925,2
including finished products	1103	-	30,3
Receivables for goods and services	1125	4346,2	6091,7
Receivables on the budget	1135	0,3	1032,2
including income tax	1136	-	-
Other current accounts receivable	1155	1108,5	582,3
Current financial investments	1160	-	-
Cash and cash equivalents	1165	177,4	974,4
Future expenses	1170	2,6	2,8
Other current assets	1190	-	22,7
Total	**1195**	**6169,6**	**10631,3**
III. Capital assets held for sale and depreciation	**1200**	-	-
Balance	**1300**	**6242,8**	**10686,0**

Liability			
	Row number	At the beginning of the accounting year	At the end of the accounting year
I. Equity			
Share capital	1400	0,4	0,4
Supplementary capital	1410	-	-
Reserve capital	1415	-	-
Undestributed profits (uncovered loss)	1420	3613,7	4132,3
Unpaid capital	1425	(-)	(-)
Total	**1495**	**3614,1**	**4132,7**
II. Long-term obligations and benefits	1595	-	-
III. Current obligations and benefits			
Pre-financing loans from banks	1600	-	-
Current accounts payable for:			
long-term liabilities	1610	-	-
goods, works, services	1615	2521,5	5904,8
on the budget	1620	56,8	422,5
including income tax liabilities	1621	-	-
on insurance	1625	10,6	7,1
salary	1630	21,9	21,1
Revenue of the future periods	1665	-	-
Other current liabilities	1690	17,9	197,8
Total	**1695**	**2628,7**	**6553,3**
IV. Liabilities associated with capital assets, which held for sale and depreciation	**1700**	-	-
Balance	**1900**	**6242,8**	**10686,0**

Financial results (2013) – Form Nr.2-m, Thsd. UAH

Financial results			
	Row number	During the reporting period	For the same period of the previous year
Net income from sales of products	2000	26046,5	25933,4
Other operating income	2120	2955,8	2036,1
Other income	2240	0,1	85,9
Total income (2000+2120+2240)	2280	29002,4	28055,4
Cost of sales	2050	(20287,1)	(20840,3)
Other operating costs	2180	(5589,4)	(3283,4)
Other costs	2270	(2187,3)	(1670,5)
Total costs (2050+2180+2270)	**2285**	**(28063,8)**	**(25794,2)**
Financial result before taxation (2280-2285)	2290	938,6	2261,2
Profit tax	2300	(420,0)	(403,6)
Net profit (loss) (2290-2300)	**2350**	**518,6**	**1857,6**

Balance (2014) – Form Nr.1-m, Thsd. UAH

Asset			
	Row number	At the beginning of the accounting year	At the end of the accounting year
I. Capital assets			
Capital assets	1010	24,4	4,8
Initial cost	1011	54,6	30,0
Wear and tear	1012	(30,2)	(25,2)
Long-term financial investments	1030	-	-
Other capital assets	1090	-	-
Total	**1095**	**24,4**	**4,8**
II. Current assets			
Productive reserves	1100	1955,5	7458,6
including finished products	1103	30,3	0,7
Receivables for goods and services	1125	6091,7	4459,8
Receivables on the budget	1135	1032,2	5967,9
including income tax	1136	-	417,4
Other current accounts receivable	1155	582,3	265,6
Current financial investments	1160	-	-
Cash and cash equivalents	1165	974,4	1527,6
Future expenses	1170	2,8	-
Other current assets	1190	22,7	23,0
Total	**1195**	**10661,6**	**19702,5**
III. Capital assets held for sale and depreciation	**1200**	-	-
Balance	**1300**	**412223**	**417135**

Liability			
	Row number	At the beginning of the accounting year	At the end of the accounting year
I. Equity			
Share capital	1400	0,4	0,4
Supplementary capital	1410	-	-
Reserve capital	1415	-	-
Undestributed profits (uncovered loss)	1420	4132,3	4318,2
Unpaid capital	1425	(-)	(-)
Total	**1495**	**4132,7**	**4318,6**
II. Long-term obligations and benefits	1595	-	-
III. Current obligations and benefits			
Pre-financing loans from banks	1600	-	-
Current accounts payable for:			
long-term liabilities	1610	-	-
goods, works, services	1615	5904,8	15192,6
on the budget	1620	4225	3,0
including income tax liabilities	1621	-	-
on insurance	1625	7,1	8,3
salary	1630	21,1	16,4
Revenue of the future periods	1665	-	-
Other current liabilities	1690	197,8	168,4
Total	**1695**	**6553,3**	**15388,7**
IV. Liabilities associated with capital assets, which held for sale and depreciation	**1700**	-	-
Balance	**1900**	**10686,0**	**19707,3**

Financial results (2014) – Form Nr.2-m, Thsd. UAH

Financial results			
	Row number	During the reporting period	For the same period of the previous year
Net income from sales of products	2000	25971,3	22668,5
Other operating income	2120	4585,4	2696,3
Other income	2240	-	-
Total income (2000+2120+2240)	2280	30556,7	25364,8
Cost of sales	2050	(21907,1)	(17378,2)
Other operating costs	2180	(6926,6)	(4363,1)
Other costs	2270	(1527,1)	(3008,2)
Total costs (2050+2180+2270)	**2285**	**(30370,8)**	**(24749,5)**
Financial result before taxation (2280-2285)	2290	185,9	615,3
Profit tax	2300	(-)	(306,6)
Net profit (loss) (2290-2300)	**2350**	**185,9**	**308,7**

Balance (2015) – Form Nr.1-m, Thsd. UAH

Asset			
	Row number	At the beginning of the accounting year	At the end of the accounting year
I. Capital assets			
Capital assets	1010	4,8	28,7
Initial cost	1011	30,0	62,3
Wear and tear	1012	(25,2)	(33,6)
Long-term financial investments	1030	-	-
Other capital assets	1090	-	-
Total	**1095**	**4,8**	**28,7**
II. Current assets			
Productive reserves	1100	7458,6	4914,5
including finished products	1103	-	17,9
Receivables for goods and services	1125	4459,8	11994,0
Receivables on the budget	1135	5618,3	674,3
including income tax	1136	84,5	208,0
Other current accounts receivable	1155	262,7	236,1
Current financial investments	1160	-	-
Cash and cash equivalents	1165	1527,6	280,5
Future expenses	1170	-	1,3
Other current assets	1190	23,0	9,8
Total	**1195**	**19350,0**	**24110,5**
III. Capital assets held for sale and depreciation	**1200**	-	-
Balance	**1300**	**19354,8**	**24139,2**

Liability			
	Row number	At the beginning of the accounting year	At the end of the accounting year
I. Equity			
Share capital	1400	0,4	0,4
Supplementary capital	1410	-	-
Reserve capital	1415	-	-
Undestributed profits (uncovered loss)	1420	3557,7	3778,0
Unpaid capital	1425	(-)	(-)
Total	**1495**	**3558,1**	**3778,4**
II. Long-term obligations and benefits	1595	-	-
III. Current obligations and benefits			
Pre-financing loans from banks	1600	-	-
Current accounts payable for:			
long-term liabilities	1610	-	-
goods, works, services	1615	15600,6	20293,1
on the budget	1620	3,5	3,6
including income tax liabilities	1621	-	-
on insurance	1625	8,3	9,1
salary	1630	16,4	18,0
Revenue of the future periods	1665	-	-
Other current liabilities	1690	167,9	37,0
Total	**1695**	**15796,7**	**20360,8**
IV. Liabilities associated with capital assets, which held for sale and depreciation	**1700**	-	-
Balance	**1900**	**19354,8**	**24139,2**

Financial results (2015) – Form Nr.2-m, Thsd. UAH

Financial results			
	Row number	During the reporting period	For the same period of the previous year
Net income from sales of products	2000	38583,2	25971,3
Other operating income	2120	3013,3	4585,4
Other income	2240	146,7	-
Total income (2000+2120+2240)	2280	41743,2	30556,7
Cost of sales	2050	(32694,7)	(21907,1)
Other operating costs	2180	(8151,8)	(6926,6)
Other costs	2270	(18,0)	(1537,1)
Total costs (2050+2180+2270)	**2285**	**(40864,5)**	**(30370,8)**
Financial result before taxation (2280-2285)	2290	878,7	1859
Profit tax	2300	(278,4)	(-)
Net profit (loss) (2290-2300)	**2350**	**600,3**	**185,9**

Statement of Authorship

I hereby certify this bachelor thesis presented here has been composed by myself and is the result of my own investigations, unless otherwise acknowledged in the text. All references and all sources of information have been specifically acknowledged. This thesis has not been submitted, either in part or whole, for a degree at this or any other University. This work has not been published.

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